

**EGLIN AIR FORCE BASE
Florida**

**FUZE EXPERIMENTATION FACILITY
AND FUZE INDUSTRIAL FACILITY
(FEF/FIF) CONSTRUCTION**

**HKP CN
ENVIRONMENTAL ASSESSMENT**



RCS 10-798 and 10-312

APRIL 2011

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FINAL FINDING OF NO SIGNIFICANT IMPACT
FOR

**FUZE EXPERIMENTATION FACILITY AND FUZE INDUSTRIAL FACILITY
CONSTRUCTION, EGLIN AIR FORCE BASE, FLORIDA**

RCS 10-798 and 10-312

This finding, and the analysis upon which it is based, was prepared pursuant to the President's Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and its implementing regulations as promulgated at 40 Code of Federal Regulations (CFR) Part 1500 (40 CFR 1500-1508) plus:

- US Air Force *Environmental Impact Analysis Process* as promulgated at 32 CFR Part 989.

The Department of the Air Force has conducted an Environmental Assessment (EA) of the potential environmental consequences associated with the Construction of a Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF), Eglin Air Force Base, Florida. That March 2011 EA is hereby incorporated by reference into this finding.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The Air Force proposes to relocate the Air Force Research Laboratory Munitions Directorate Fuzes Branch (AFRL/RWMF) personnel and activities from its current location in building 419 to two new facilities to be constructed in a nearby developed area directly southeast of the current building 419. Facilities would be single-story with reinforced concrete foundations, stone exterior and metal siding with insulation over filled cinderblock construction, and sloped standing seam metal roofs. Facilities would comply with Department of Defense (DoD) force protection requirements according to Unified Facilities Criteria.

The total building construction area would be 9,700 square feet (ft²). Associated paved roads and parking totaling 43,800 ft² would also be constructed to support the facilities. Existing substandard facilities totaling 8,800 ft² would be demolished. For this EA, an overall project area of 5 acres that may be disturbed by construction and demolition activities was analyzed.

No Action Alternative

Under the No Action Alternative, the FEF/FIF would not be constructed, and AFRL/RWMF personnel would continue to operate in the current facility. The facility would remain at the current location and in its current substandard state.

This alternative is not a viable alternative since the current facility is inadequate to allow AFRL/RWMF to meet its mission goals. Further, the facility presents a potentially dangerous

work environment for personnel due to the leaky roof and presence of mold, as well as the rodent infestation and potential for deadly disease transmission.

Environmental Impacts


Analysis was conducted to determine the potential impacts to the human and natural environment resulting from the Proposed Action and the No Action Alternative. No significant impacts to resources have been identified. A detailed discussion of issues analyzed and management strategies used to reduce potential impacts is given in the EA, in Chapter 3: Affected Environment and Environmental Consequences, and Chapter 5: Plans, Permits, and Management Actions.

Public Notification

Per 32 CFR 989.24(c), notification was provided to the state Single Point of Contact (Florida State Clearinghouse), local government representatives, and local news media. The Florida State Clearinghouse was provided the Coastal Zone Management Act (CZMA) Consistency Determination detailing the Proposed Action on March 3, 2011 (Appendix A). On March 10, 2011 the Clearinghouse indicated that they had no additional comments on the EA, and gave notice to proceed with the Proposed Action (Appendix B). Local politicians and news media were notified of the proposed action on March 28, 2011 by the 96th Air Base Wing Office of Public Affairs (Appendix B).

Finding of No Significant Impact

Based on my review of the facts and the environmental analysis contained in the attached EA, and as summarized above, I find that the proposed decision of the Air Force to allow the construction of FEF/FIF facility on Eglin AFB, Florida, at the Proposed Action site will not have a significant impact on the human or natural environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's CEQ, and 32 CFR Part 989.


DAVID H. MAHARREY, JR., Colonel, USAF
Commander, 96th Civil Engineer Group


Date

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Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF) Construction

Final Environmental Assessment

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RCS 10-798 and 10-312

April 2011



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LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

96 CEG/CEVC	96th Civil Engineer Group/Environmental Compliance
96 CEG/CEVCE	96th Civil Engineer Group/Environmental Engineering Section
96 CEG/CEVH	96th Civil Engineer Group/Cultural Resources Branch
96 CEG/CEVSP	96th Civil Engineer Group/Environmental Analysis Section
96 CES/CED	96th Civil Engineer Squadron/Explosive Ordnance Disposal
AAC	Air Armament Center
ACAM	Air Conformity Applicability Model
AFB	Air Force Base
AFF	Air Force Form
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AFRL	Air Force Research Laboratory
AFRL/RWMF	Air Force Research Laboratory/Munitions Directorate Fuzes Branch
AICUZ	Air Installation Compatible Use Zone
BMP	best management practice
C&D	construction and demolition
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO₂	carbon dioxide
CZMA	Coastal Zone Management Act
dB	decibels
dBA	A-weighted decibels
dBC	C-weighted decibels
DCA	Florida Department of Community Affairs
DNL	day-night average sound level
DoD	Department of Defense
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
ESQD	explosive safety quantity-distance
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FEF	Fuze Experimentation Facility
FICON	Federal Interagency Committee on Noise
FICUN	Federal Interagency Committee on Urban Noise
FIF	Fuze Industrial Facility
ft²	square feet
FW	Fighter Wing
FWC	Florida Fish and Wildlife Conservation Commission
GIS	geographic information system
HAZMAT	hazardous materials
HMMS	Hazardous Materials Management System
Hz	hertz
IJTS	Initial Joint Training Site
JSF	Joint Strike Fighter
µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS, CONT'D

NIOSH	National Institute of Occupational Safety and Health
NMFS	National Marine Fisheries Service
NO₂	nitrogen dioxide
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PM₁₀	particulate matter with a diameter of less than or equal to 10 microns
PM_{2.5}	particulate matter with a diameter of less than or equal to 2.5 microns
ppb	parts per billion
ppm	parts per million
RCW	red-cockaded woodpecker
ROD	Record of Decision
ROI	region of influence
SEL	sound exposure level
SHPO	State Historic Preservation Officer
SO_x	sulfur oxide
std	standard
SWPPP	Stormwater Pollution Prevention Plan
TA	Test Area
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish And Wildlife Service
USGS	U.S. Geological Survey
UXO	unexploded ordnance
VOC	volatile organic compound

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1. PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) presents the potential environmental consequences associated with the construction of a new Fuze Experimentation Facility (FEF) and Fuze Industrial Facility (FIF) at Eglin Air Force Base (AFB), Florida (Figure 1-1). The FEF/FIF would provide the facilities and infrastructure for approximately 12 full-time Air Force Research Laboratory Munitions Directorate Fuzes Branch (AFRL/RWMF) personnel engaged in research, development, and testing of fuze technologies.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508), and Air Force regulations implementing NEPA procedures (32 CFR 989).

1.2 PROPOSED ACTION

The Air Force proposes to relocate the AFRL/RWMF personnel and activities from its current location in building 419 to two new facilities to be constructed in a nearby developed area directly southeast of the current building 419. Facilities would be single-story with reinforced concrete foundations, stone exterior and metal siding with insulation over filled cinderblock construction, and sloped standing seam metal roofs. Facilities would comply with Department of Defense (DoD) force protection requirements according to Unified Facilities Criteria. The total building construction area would be 9,700 square feet (ft²). Associated paved roads and parking totaling 43,800 ft² would also be constructed to support the facilities. Existing substandard facilities totaling 8,800 ft² would be demolished. For this EA, an overall project area of 5 acres that may be disturbed by construction and demolition activities was analyzed.

1.3 BACKGROUND

On May 14, 2010, the Air Force Form (AFF) 813 request to construct a new Fuze Experimentation Facility was approved for a categorical exemption from environmental analysis. Then in December 2010, a related AFF 813 requesting construction of the Fuze Industrial Facility was submitted. At that point, it was determined that the phased construction of these two facilities and the demolition of the current facility should be included under one action, which would require an EA under NEPA.

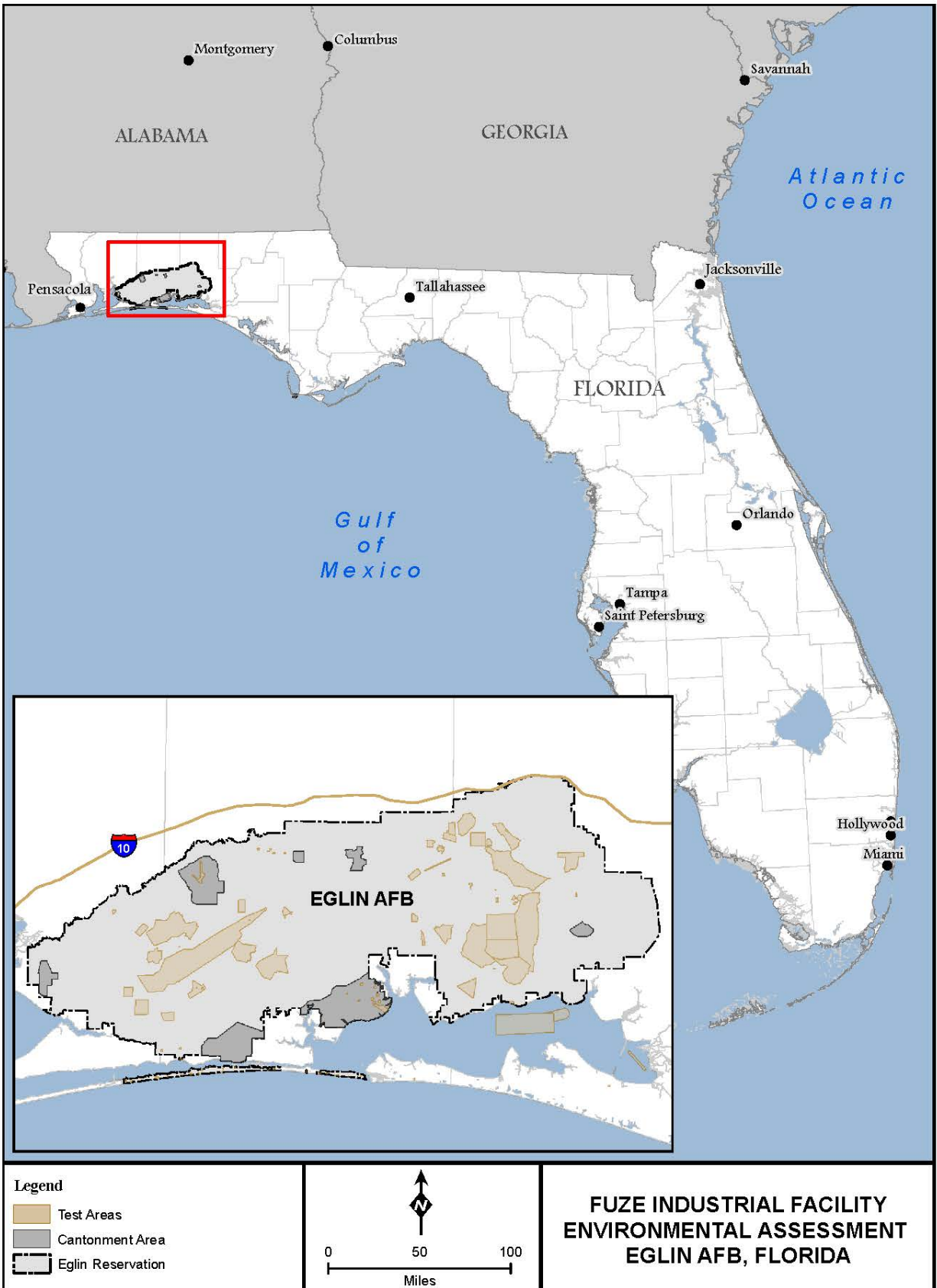


Figure 1-1. Regional Setting of the Proposed Action

1.4 NEED FOR THE PROPOSED ACTION

This action is needed for the following reasons:

- The current work space is insufficient in both size and configuration for the number and types of in-house projects under investigation.
- Storage is inadequate for the amount of research equipment that is required in the experimentation facility.
- Office space is inadequate to house the research scientists, engineers, and technicians.
- The current facility experiences extensive roof leaks every time it rains (145 days per year on average) that pose a threat to computers and other electronic equipment. The leaks have led to the growth of mold and mildew, which pose long-term health risks to personnel (Figure 1-2, Figure 1-3, Figure 1-4, and Figure 1-5).
- Gaps in the structure allow the incursion of rodents, posing long-term health risks from their wastes (Figure 1-6, Figure 1-7, and Figure 1-8).



Figure 1-2. Water Damage to Carpet



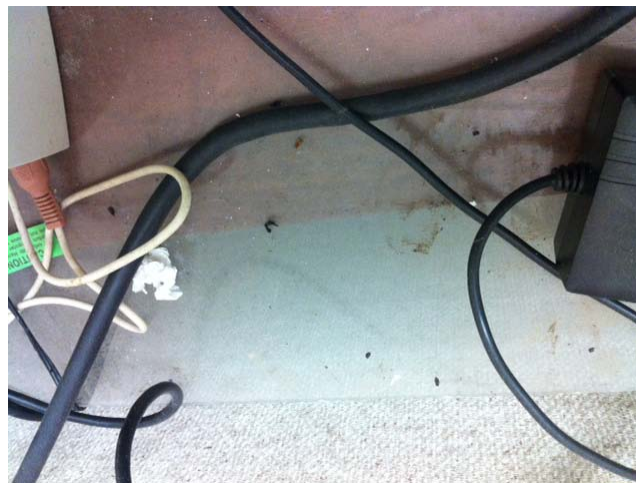
Figure 1-3. Water Damage to Interior Drywall



Figure 1-4. Mold Near Vent



Figure 1-5. Mold on Ceiling

**Figure 1-6. Holes in Walls****Figure 1-7. Gaps in Walls and Ceiling****Figure 1-8. Rodent Feces on Desk**

Fuze research and development must meet public law for insensitive munitions and support the trend of smaller warhead, higher speed, hard target munitions. If the facility revitalization is not implemented, the Air Force will incur significant delays in validating the design strategies necessary for fuze electronics to survive the ever-increasing harsh penetration environment when attacking hard targets. This delay will translate into a delay in the development and fielding of the next generation of hard target fuze systems. Additionally, facilities would not exist to support efforts conducted in collaboration with other agencies and Air Force commands.

1.5 RELATED ENVIRONMENTAL DOCUMENTATION

The following environmental documents are related to the Proposed Action:

- AFF 813, Request for Environmental Impact Analysis. RCS 10-798. December 16, 2010. Submitted to the 96th Civil Engineer Group, Environmental Analysis Section (96 CEG/CEVSP) by the AFRL/RWMF.
- AFF 813, Request for Environmental Impact Analysis. RCS 10-312. May 14, 2010. Submitted to the 96 CEG/CEVSP by the AFRL/RWMF.

1.6 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The scope of the EA pertains to the affected geographic area and resource categories, the components of the action, and the environmental issues that could potentially result from the action. Very minor or nonexistent issues discussed in Section 1.6.1 have been eliminated from detailed analysis (Figure 1-9) in order to focus on more important issues, which are identified in Section 1.6.2.

1.6.1 Environmental Issues Eliminated Through Preliminary Impact Analysis of the Proposed Action

Socioeconomic Resources

Impacts to socioeconomic resources were not carried forward for further analysis. Socioeconomic resources include factors associated with the human environment such as population, employment and earnings, community services, and demographics. The relocation of the FEF/FIF would involve only relocation of current personnel to the new facilities. No changes to the population, employment, or earnings; nor impacts on community services; nor changes to the demographics would occur.

Environmental Justice and Special Risks to Children

In accordance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, federal agencies must identify and address, as appropriate, disproportionately high and adverse environmental and human health effects in minority and low-income communities. Also, 32 CFR 989, *Environmental Impact Analysis Process*, addresses the need for consideration of environmental justice issues in compliance with the NEPA. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, directs federal agencies to identify and assess environmental health and safety risks to children, coordinate research priorities on children's health, and ensure that their standards take into account special risks to children. The Proposed Action would take place on land adjacent to the current fuze research facility (building 419) at Eglin AFB. No minority or low-income populations or concentrated areas with children occur near the project area. Therefore, impacts to environmental justice and special risks to children would not be an issue and are not further analyzed.

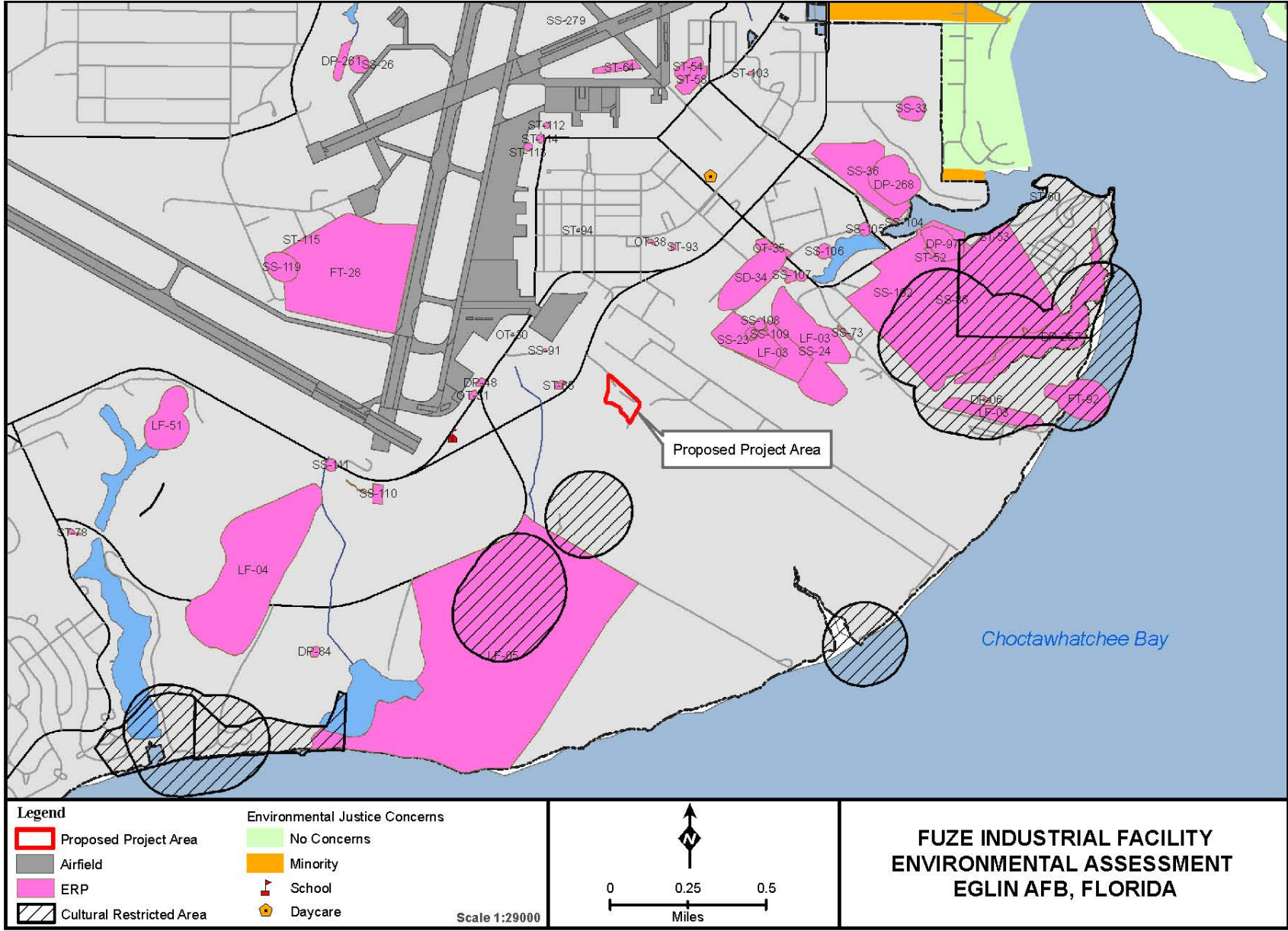


Figure 1-9. Resources Not Carried Forward for Detailed Analysis

04/01/11

FEF/EIF Construction Environmental Assessment

Eglin Air Force Base, FL

Final

Soil

Potential impacts to soil would consist of disturbance during construction. Soil impacts were not addressed in detail because the issue of erosion is addressed in the discussion of impacts to water resources from stormwater. Additionally, the potential for soil erosion is low, given the flat terrain and permeable sandy soil, which would facilitate downward percolation of stormwater and limit the potential for surface transport.

Hazardous Materials/Solid Waste

Issues with hazardous materials (HAZMATs) are limited to ensuring that necessary management actions are taken with regard to these materials. Any HAZMAT used in the construction project would be tracked through the Hazardous Materials Management System (HMMS). Because HAZMATs would be tracked and accounted for through the HMMS, further analysis is not warranted. Likewise, any HAZMAT used by personnel in the completed facilities would also be distributed and tracked through the HAZMAT program. Also, the current practice of using a licensed hazardous waste disposal contractor would continue under the Proposed Action.

Fuel storage would comply with Air Force Instruction (AFI) 32-7044, *Storage Tank Compliance* (U.S. Air Force, 2003), for all aspects of installation, inspection, spill response, clean up, and reporting.

The issue of solid waste was eliminated from further analysis. Construction and demolition activities would potentially generate minor amounts of solid waste such as construction debris, land clearing debris, and soil. These waste streams would be segregated at generation for recycling or disposal at a secure, permitted facility in accordance with Air Armament Center (AAC) Plan 32-7, *Solid Waste Management*. As a result, no adverse environmental impacts are anticipated, and further analysis is not warranted.

Land Use

The project area's land use is defined as industrial, and the site is currently developed, cleared land (Figure 1-10). Immediately adjacent land uses include open space and aircraft operations, and maintenance associated with the 33rd Fighter Wing (FW) area. Because the primary activity within the project area would be research and testing, land use would likely remain defined as industrial. There would be no change in land use.

Transportation

The Proposed Action involves construction of two new facilities adjacent to the location of the current facility. No increase in personnel numbers is anticipated. Therefore, FEF/FIF construction is not likely to impact the existing level of service on roads.



Figure 1-10. Proposed Construction Site

Cultural Resources

The Proposed Action would involve ground-disturbing activities, which can potentially affect buried cultural resources. However, no known archaeological sites, historic structures, historic districts, historic cemeteries, or traditional cultural properties have been previously located within this area. The nearest cultural restricted area is located over 1,000 feet southwest of the project area. Range 22 is a Historic District that contains World War II and Cold War buildings that are eligible for the National Register of Historic Places. However, these resources are not expected to be impacted by planned activities. Should cultural resources be discovered during construction, the contractor would be required to report the discovery immediately to 96th Civil Engineer Group, Cultural Resources Branch (96 CEG/CEVH).

1.6.2 Issues Associated With the Proposed Action

Air Quality

Construction and demolition would produce dust and combustive emissions.

Water Resources

Eglin AFB's geographic information system (GIS) maps indicate that surface waters are not located within construction footprints. Groundwater would not be affected, and water usage would not increase. However, as with many construction projects, there would be ground

disturbance and the potential for displaced dust and soil to contribute to stormwater runoff. Likewise, the increase in impervious surfaces due to new construction may impact stormwater.

Noise

The location of the proposed site near the Test Area (TA) A-22 training range and flightline requires an evaluation of potential noise exposure on FEF/FIF personnel both indoors and outdoors. Construction noise would be temporary, of low intensity, and most likely indiscernible above flightline noise. For these reasons, construction noise would not be an issue requiring in-depth analysis. Thus, for the analysis in this EA only, noise exposure to FEF/FIF personnel from live-fire training at TA A-22 and from aircraft overflight was evaluated.

Biological Resources

The Proposed Action involves construction and demolition in an already developed area of Eglin Main Base. However, some species of concern have been historically noted in the vicinity of the project area. The analysis discusses species that are potentially affected.

Health and Safety

The Proposed Action project area is located directly north of a munitions storage area and south of a live-fire range (TA A-22). The roads bordering the project area are part of the primary explosive transport route. Furthermore, the entire project area is classified as having probable unexploded ordnance (UXO) contamination. While the new facilities are likely to vastly improve working conditions for personnel, the analysis focuses on the safety of construction crews and personnel due to UXO and explosives.

Utilities

The Proposed Action involves construction of two new facilities that would require new utilities connections. While the new facilities are likely to draw the same or even less electricity and water than the existing facility due to new construction standards and methods, the change from a septic sewage system to a tie-in to Eglin AFB's main sewage line warrants consideration.

1.7 APPLICABLE REGULATORY REQUIREMENTS AND COORDINATION

Reviews of pertinent documents, site visits, and communication with Eglin AFB personnel found no identified threatened and endangered species or cultural resources within the proposed project area. As a result, no consultations with regulatory agencies for cultural resources or threatened or endangered species would be required for construction of the FEF/FIF facilities. If the proponent or its contractors discover any cultural artifacts during construction activities, coordination with 96 CEG/CEVH is required. Chapter 6 discusses additional management actions required to reduce any potential impacts to resource areas. Applicable regulatory requirements and coordination are explained in the following sections.

1.7.1 Air Quality

In accordance with EO 12088, *Federal Compliance with Pollution Control Standards*, DoD facilities must ensure that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to the Clean Air Act (CAA) and other environmental laws. In support of EO 12088, Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, requires Air Force facilities to comply with applicable federal, state, and local environmental laws and standards. Furthermore, AFI 32-7040, *Air Quality Compliance*, establishes a framework for Air Force facilities to follow in order to comply with applicable CAA requirements. This framework includes requirements to obtain and maintain the necessary operating permits and to prepare and periodically update a comprehensive base emissions inventory.

In 1996, Eglin AFB determined that emission thresholds needed to qualify as a “major” source under the federal Title V Operating Program promulgated in 40 CFR 70, were exceeded for various criteria pollutants and hazardous air pollutants. As a result of this determination, Eglin AFB was issued a Title V permit dated July 2, 1999. Eglin AFB’s current Air Operating Permit is valid through May 2014.

1.7.2 Water Resources

The Proposed Action would require an Erosion, Sedimentation, and Pollution Control Plan, commonly referred to as a Stormwater Pollution Prevention Plan (SWPPP), as a requirement of the National Pollutant Discharge Elimination System (NPDES) stormwater construction permit (Florida Administrative Code [FAC] 62-621.300[4]). An Environmental Resource Permit (for stormwater) would also be required. The proponent would obtain a design and construction permit in accordance with FAC Rule 62-25 because the Proposed Action would increase the impervious surface area. The proponent must ensure that a Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction be submitted prior to project initiation. Coordination with the 96th Civil Engineer Group, Environmental Engineering Section (96 CEG/CEVCE) is required to obtain stormwater permits and any necessary utility extension permits.

The Coastal Zone Management Act (CZMA) provides for the effective, beneficial use, protection, and development of the U.S. coastal zone. Federal agency activities in the coastal zone are required to be consistent, to the maximum extent practicable, with approved state Coastal Zone Management Plans. Federal agencies make determinations regarding whether their actions are consistent with approved state plans and submit these determinations for state agency review and concurrence. All relevant state agencies must review the Proposed Action and issue a consistency determination. The Florida Department of Environmental Protection (FDEP) has reviewed and concurred with the Air Force’s negative determination (Appendix A).

1.7.3 Noise

There are no specific legal limits that apply to military noise. In 1972, Congress passed the Noise Control Act, which imposed limitations on source noise levels of several types of equipment. Military equipment was exempted from these requirements; however, because noise

controls could in some cases reduce the combat effectiveness of the equipment. For the same reason, the Federal Aviation Administration limitations on civilian aircraft noise do not apply to military aircraft. The Air Force participated in the Federal Interagency Committee on Urban Noise (FICUN) development of noise levels and land use compatibility associated with airfields. Noise impacts are defined based on published guidelines on the compatibility of various land uses with noise and published scientific documents on noise effects.

1.7.4 Biological Resources

The Endangered Species Act (ESA) of 1973 (16 U.S. Code [USC] 1531 to 1544; 1997–Supp) was enacted to provide for the conservation of endangered and threatened species and the ecosystems on which they depend. AFD 32-70 directs the implementation of the ESA. Certain federal activities may require an ESA Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) if impacts to federally listed species are possible. Avoidance of impacts by changing the time of action, place of action, or types of activities in locations of federally listed species can be cost- and time-effective if a consultation is avoided. The Proposed Action would not require a Section 7 consultation.

AFI 32-7064 provides details regarding the methodology to manage natural resources in such a way as to comply with federal, state, and local laws and regulations. AFI 32-7064 calls for the protection and conservation of state-listed species when not in direct conflict with the military mission. Eglin AFB applies for appropriate permits for actions that may affect state-listed species (such as monitoring and handling of gopher tortoise) and also cooperates with the Florida Fish and Wildlife Conservation Commission (FWC) to further the goals of the Florida State Wildlife Conservation Strategy.

The Migratory Bird Treaty Act (16 USC 703 et seq.) was enacted to ensure the protection of shared migratory bird resources. The Migratory Bird Treaty Act prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit. The Migratory Bird Treaty Act protects a total of 836 bird species, 58 of which are currently legally hunted as game birds. The USFWS regulations authorize permits for takes of migratory birds for activities such as scientific research, education, and depredation control.

Invasive nonnative species are species introduced from other countries or regions of the United States that threaten native plants and animals by altering the composition, structure, and function of native ecosystems. Invasive nonnative species impose large economic costs on natural resource managers, requiring intensive and extensive management to prevent undesirable ecosystem changes. Recognizing the ecological and economic impacts of invasive species, the President issued EO 13112, to manage and control the spread of invasive species and restore affected native conditions.

1.7.5 Cultural Resources

Attention to cultural resources is important to Eglin AFB for its required efforts to comply with a host of federal laws, regulations, and EOs. Both DoD Instruction 4715.3, *Environmental*

Conservation Program, and AFI 32-7065, *Cultural Resources Management*, outline and specify procedures for Air Force cultural resource management programs. At Eglin AFB, the Integrated Cultural Resource Management Plan specifies Eglin-specific policies and procedures regarding the treatment of cultural resources (U.S. Air Force, 2004).

Under the National Historic Preservation Act (NHPA), the Air Force is required to consider the effects of its undertakings on historic properties listed or eligible for listing in the National Register of Historic Places (NRHP), and to consult with interested parties regarding potential impacts. The NRHP is the nation's formal listing of cultural resources considered worthy of preservation. It is administered by the National Park Service and is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. Properties listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

The regulatory NHPA Section 106 compliance process consists of four primary stages. These include: initiation of the Section 106 process (36 CFR 800.3); identification of historic properties (36 CFR 800.4), which includes identifying historic properties potentially affected by undertakings; assessment of adverse effects (36 CFR 800.5), which determines whether the undertaking will affect historic properties and if effects to those properties might be adverse; and resolution of adverse effects (36 CFR 800.6) between affected and consulting parties such as the State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, Indian tribes, and interested individuals. Additional stipulations are provided for in the NHPA should a failure to resolve adverse effects occur during this process (36 CFR 800.7).

1.7.6 Transportation

The Florida Transportation Uniform Standard Code, 9J-2.045, FAC, gives the Florida Department of Community Affairs (DCA) Division of Community Planning guidance on how they will evaluate transportation facility issues in the review of applications for local government developer orders and Developments of Regional Impacts. The Transportation Uniform Standard Code implements, in part, Chapter 380 of the Florida Statutes, *Land and Water Management*. Chapter 380 is one of the 23 statutes in the state of Florida that compose the Florida Coastal Management Program and it is administered by the Florida DCA. The purpose of Chapter 380 is to facilitate orderly and well-planned development, by authorizing the state land planning agency to establish land management policies to guide local decisions relating to growth and development. Eglin AFB has submitted a federal consistency review under the CZMA for the Proposed Action, which was reviewed by the Florida DCA, who concurred with Eglin AFB's determination.

1.7.7 Land Use

There are no specific regulations associated with land use activities other than Air Force standards. Guidelines were generally adopted from publications such as FICUN's *Guidelines for Considering Noise in Land-Use Planning and Control* and the U.S. Department of Transportation publication, *Standard Land Use Coding Manual*. Air Force Manual 91-201,

Explosives Safety Standards, provides guidelines for explosive safety quantity distance (ESQD) clearance zones.

1.7.8 Socioeconomics

There are no specific regulations that govern socioeconomic aspects such as employment, population, or public services.

1.7.9 Solid Waste Management Laws and Regulations

The Florida statutes and regulations governing solid waste management include:

- Florida Solid and Hazardous Waste Management Act (Florida Statutes 29 Chapter 403): Requires that counties establish and operate solid waste disposal facilities and that each county implement a recycling program to achieve reduction in the levels of solid waste disposed.
- Florida Resource Recovery and Management Regulations (FAC 67.2): Establishes local resource recovery and management programs and regulates the collection, transport, storage, separation, processing, recycling, and disposal of solid wastes.
- Florida Solid Waste Disposal Facility Regulations (FAC 62-701): Establishes regulations for the construction, operation, and closure of solid waste facilities including landfills.
- The regulations governing solid waste disposal in Florida provide for three categories of landfills: Class I, Class II, and Class III. The permitting requirements for Class I and Class II landfills are the same. Class I and Class II landfills are differentiated based upon size, with Class II landfills being smaller than Class I. Class III landfills are landfills limited to the disposal of construction and demolition (C&D) debris or other inert wastes that are generally considered to be nonhazardous in nature or not water soluble. Solid wastes acceptable for disposal at a Class III landfill are limited to materials (concrete, wood, plastic, glass, etc.) that are not expected to produce leachate when disposed.
- Air Force regulatory requirements for the management of solid wastes are established by the AFPD 32-70, *Environmental Quality*. This Directive requires compliance with applicable federal, state, and local environmental laws and standards. For solid waste, AFD 32-70 is implemented by AFI 32-7042, *Solid and Hazardous Waste Compliance*.
- AFI 32-7042 requires each installation to have a solid waste management program that includes a solid waste management plan to address handling, storage, collection, disposal, and reporting of solid waste. AFI 32-7080, *Pollution Prevention Program*, contains the solid waste requirement for preventing pollution through source reduction, resource recovery, and recycling.

1.7.10 Hazardous Waste Management Laws and Regulations

Hazardous wastes must meet either a hazardous characteristic of ignitability, corrosivity, toxicity, or reactivity under 40 CFR 261, or be listed as a waste under 40 CFR 261.

1.7.11 Summary of Required Permits and Regulatory Coordination

In summary, the proponent would be responsible for coordinating with Eglin AFB to obtain or revise the following permits or regulatory obligations:

- A design and construction permit must be obtained in accordance with FAC Rule 62-25.
- According to Rule 62-25, the proponent must ensure that a Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction be submitted prior to project initiation.
- This construction project requires consistency with Florida's CZMA. FDEP has reviewed and concurred with the Air Force submitted negative determination (Appendix A).

1.7.12 Public Notification

Per 32 CFR 989.24(c), notification was provided to the state Single Point of Contact (Florida State Clearinghouse), local government representatives, and local news media. The Florida State Clearinghouse was provided the CZMA Consistency Determination detailing the Proposed Action on March 3, 2011 (Appendix A). On March 10, 2011 the Clearinghouse indicated that they had no additional comments on the EA and gave notice to proceed with the Proposed Action (Appendix B). Local politicians and news media were notified of the Proposed Action on March 28, 2011 by the 96th Air Base Wing Office of Public Affairs (Appendix B).

1.8 DOCUMENT ORGANIZATION

This EA contains seven chapters. Chapter 1 details the purpose and need for the action and also describes the location of the Proposed Action. It also summarizes the scope of the environmental review. Chapter 2 provides a detailed description of the Proposed Action and the No Action Alternative. Chapter 3 describes, in general, the current conditions of the resources that the Proposed Action could affect and presents the analysis of the environmental consequences of the Proposed Action and the No Action Alternative. Chapter 4 provides an analysis of cumulative impacts and irretrievable commitment of resources. Chapter 5 identifies permitting requirements, mitigations, and management practices for minimizing potential impacts. Chapter 6 lists the preparers of this EA. Chapter 7 lists publications cited in this report. Appendix A presents the CZMA consistency review documentation.

2. DESCRIPTION OF THE PROPOSED ACTION AND NO ACTION ALTERNATIVE

2.1 PROPOSED ACTION: CONSTRUCT NEW FEF/FIF (PREFERRED ALTERNATIVE)

The AFRL/RWMF proposes to relocate the fuze research, development, testing, and evaluation activities from the existing building 419 at Eglin AFB to two new facilities to be constructed on an adjacent parcel of land (Figure 2-1) and to demolish the existing facility, which is deficient. The Proposed Action includes construction of a new FEF, a new FIF, associated parking and other facilities, the demolition of one existing structure, and relocation of personnel. The overall project area, or the area that may be disturbed by activities associated with the Proposed Action, encompasses approximately 5 acres on the Eglin Main Base.

2.1.1 Fuze Experimentation Facility

The proposed FEF would involve construction of an approximately 4,700-square-foot facility that would provide office, laboratory space, and much needed storage space to support research, development, testing, and evaluation activities for fuze characterization and phenomenology research. This facility would provide the necessary space required for 12 permanent scientists, engineers, technicians, research equipment, and project materials. Locker rooms would provide storage of personal protective equipment and shower facilities for personnel who have been contaminated by munitions detonation residue.

The proposed work space would allow for the creation and testing of fire-control circuitry used with large-caliber guns, air guns, and light gas guns. Continuing technology needs require the development of predictive modeling and a cost-effective testing capability to support the development of fuze component and system technologies.

2.1.2 Fuze Industrial Facility

The FIF would involve construction of an approximately 5,000-square-foot building. This facility would house cannon maintenance, rapid prototyping machinery, welding, wood fabrication, and a shock dynamics laboratory.

2.1.3 Associated Facilities

For maintenance on large and/or vehicle-mounted weapons, a covered paved area would be located between the FIF and FEF buildings. This area would cover approximately 1,800 ft². Also proposed as part of the action are road improvements and new entry roads totaling about 7,000 ft². The project would include asphalt-paved parking areas for each facility, totaling 35,000 ft² (0.8 acres). Figure 2-2 presents a notional layout of the proposed construction.

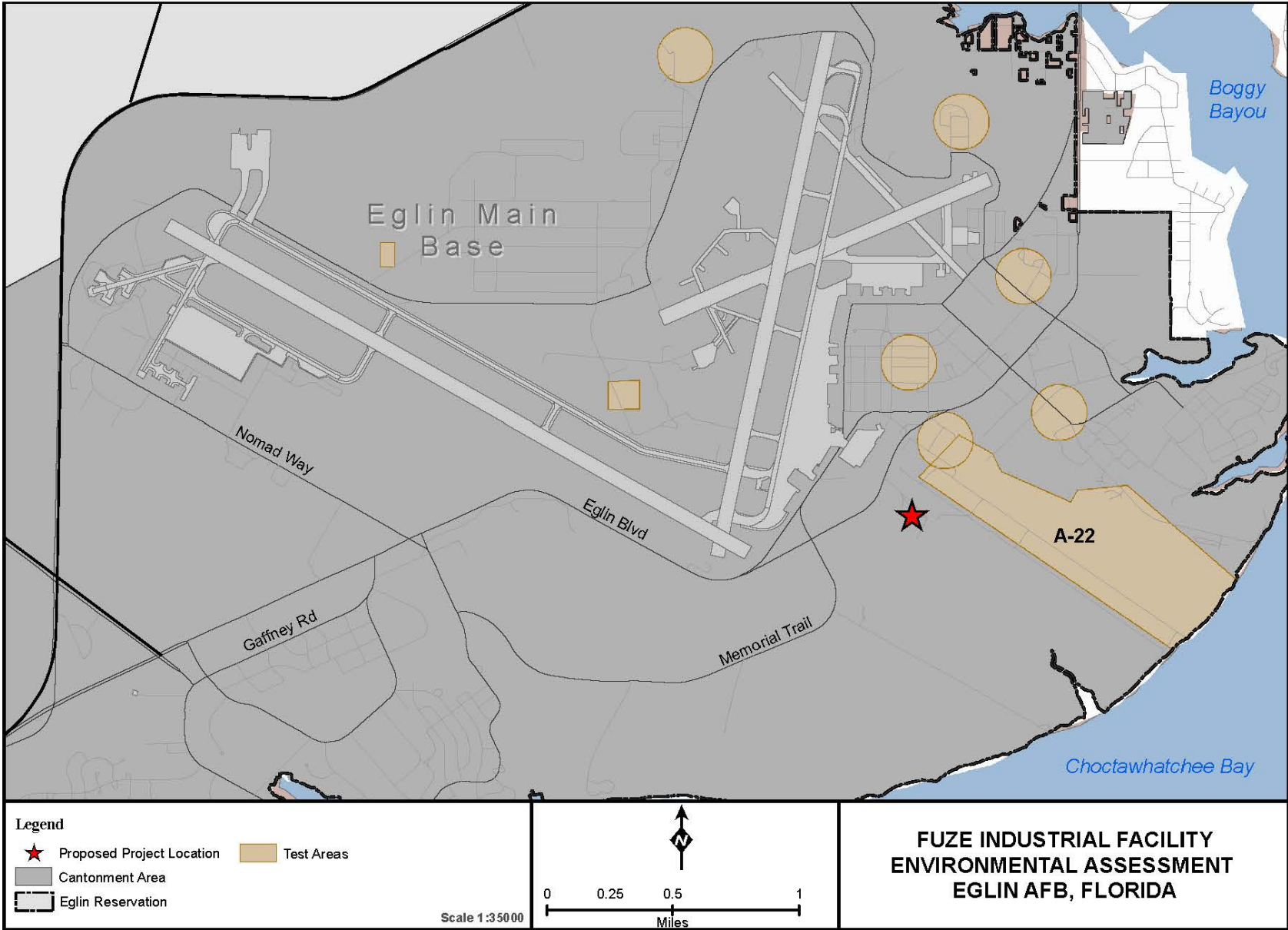


Figure 2-1. Proposed Action Location



Figure 2-2. Notional Layout of Proposed FEF/FIF Construction

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2.1.4 Demolition of Building 419

Under the Proposed Action, the current fuze research facility located in building 419 southeast of Eglin Boulevard and adjacent to TA A-22 would be demolished. This facility was built in 1955 and has since become dilapidated to the point that it presents a potentially dangerous and unhealthy work environment. The facility is approximately 8,800 ft² and is steel beam construction with metal siding built on a concrete slab on grade.

2.2 NO ACTION ALTERNATIVE: REMAIN IN BUILDING 419

Under the No Action Alternative, the FEF/FIF would not be constructed, and ARFL/RWMF personnel would continue to operate in the current facility. The facility would remain at the current location and in its current substandard state.

This alternative is not a viable alternative since the current facility is inadequate to allow AFRL/RWMF to meet its mission goals. Further, the facility presents a potentially dangerous work environment for personnel due to the leaky roof and presence of mold, as well as the rodent infestation and potential for deadly disease transmission.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment comprises the area including and adjacent to the existing building 419 on Eglin Main Base. This chapter describes the physical, biological, and anthropogenic features at these locations that may potentially be impacted by the Proposed Action.

Section 3.1 describes the current air quality conditions at Eglin Main and the potential environmental consequences of the Proposed Action. Section 3.2 describes water resources potentially affected by the action and the anticipated impacts of the action. Section 3.3 describes noise generated from activities at Eglin AFB within the areas of the Proposed Action and the potential impacts to FEF/FIF personnel. Section 3.4 describes biological resources such as habitats, wildlife, and protected species that may occur at the Proposed Action site and anticipated impacts to those resources from the Proposed Action. Section 3.5 discusses health and safety concerns and policies and procedures, as well as the potential impacts to personnel as a result of the Proposed Action. Section 3.6 describes the existing utilities infrastructure at Eglin AFB and potential impacts of implementing the Proposed Action.

3.1 AIR QUALITY

3.1.1 Definition of the Resource

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

The baseline standards for pollutant concentrations are the National Ambient Air Quality Standards (NAAQS) and state air quality standards. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare (Table 3-1). Based on measured ambient air pollutant concentrations, the U.S. Environmental Protection Agency (USEPA) designates whether areas of the U.S. meet the NAAQS. Those areas demonstrating compliance with the NAAQS are considered “attainment” areas, while those not in compliance are known as “nonattainment.” Those areas that cannot be classified on the basis of available information for a particular pollutant are “unclassifiable” and are treated as attainment areas until proven otherwise.

3.1.2 Existing Condition

Baseline Emissions

For this air quality analysis, the region of influence (ROI) is Okaloosa County. The FDEP currently operates one ozone monitor in Okaloosa County, located at 720 Lovejoy Road in Fort Walton Beach. This monitor began monitoring ozone levels on December 4, 2008 (FDEP, 2011). Okaloosa County is classified as an attainment area, as all counties within Florida are classified as attainment areas (USEPA, 2010a).

Table 3-1. National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon monoxide	9 ppm (10 mg/m ³)	8 hours ^a	None	
	35 ppm (40 mg/m ³)	1 hour ^a		
Lead	0.15 µg/m ³ ^b	Rolling 3-month average	Same as primary	
	1.5 µg/m ³	Quarterly average	Same as primary	
Nitrogen dioxide	53 ppb ^c	Annual (arithmetic average)	Same as primary	
	100 ppb	1 hour ^d	None	
Particulate matter (PM ₁₀)	150 µg/m ³	24 hours ^e	Same as primary	
Particulate matter (PM _{2.5})	15.0 µg/m ³	Annual ^f (arithmetic mean)	Same as primary	
	35 µg/m ³	24 hours ^g	Same as primary	
Ozone	0.075 ppm (2008 std)	8 hours ^h	Same as primary	
	0.08 ppm (1997 std)	8 hours ⁱ	Same as primary	
	0.12 ppm	1 hour ^j	Same as primary	
Sulfur dioxide	0.03 ppm	Annual (arithmetic average)	0.5 ppm (1,300 µg/m ³)	3 hours ^a
	0.14 ppm	24 hours ^a		
		75 ppb ^k	1 hour	None

Source: USEPA, 2010

µg/m³ = microgram per cubic meter; mg/m³ = milligrams per cubic meter; PM₁₀ = particulate matter with a diameter of less than or equal to 10 microns; PM_{2.5} = particulate matter with a diameter of less than or equal to 2.5 microns; ppb = parts per billion; ppm = parts per million; std = standard

a. Not to be exceeded more than once per year.

b. Final rule signed October 15, 2008.

c. The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

d. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

e. Not to be exceeded more than once per year on average over 3 years.

f. To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.

g. To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³ (effective December 17, 2006).

h. To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).

i. (1) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(2) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

(3) USEPA is in the process of reconsidering these standards (set in March 2008).

j. (1) USEPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard (“anti-backsliding”).

(2) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

k. Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

An air emissions inventory describes the amount of emissions from a facility or within an area. Emissions inventories locate pollution sources, define the type and size of sources, characterize emissions from each source, and estimate total mass emissions generated over a period of time, normally a year. These annual rates are typically represented in tons per year. Inventory data establish relative contributions to air pollution concerns by classifying sources and determining the adequacy, as well as necessity, of air regulations. Accurate inventories are imperative for development of appropriate air quality regulatory policy. These inventories include stationary sources and encompass equipment/processes such as boilers, electric generators, surface coating, and fuels handling operations. Mobile sources include motor vehicles, aerospace ground support equipment, and aircraft operations.

For comparison purposes, the USEPA's 2002 National Emissions Inventory (NEI) data for Okaloosa County are presented in Table 3-2. The county data include emissions amounts from point sources (a stationary source that can be identified by name and location), non-point sources (a point source whose emissions are too small to track individually, such as a home or small office building, or a diffuse stationary source, such as wildfires or agricultural tilling), and mobile sources (any kind of vehicle or equipment with gasoline or diesel engine, airplane, or ship) (USEPA, 2002).

Table 3-2. Baseline Emissions Inventory for Okaloosa County

Source Type	Emissions (tons/year)					
	CO	NO _x	SO _x	VOCs	PM ₁₀	PM _{2.5}
Point source emissions	28	49	12	79	8	6
Nonpoint and mobile source emissions	96,594	7,864	1,418	19,157	7,846	3,710
Total	96,622	7,913	1,430	19,236	7,854	3,716

Source: USEPA, 2002

CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = particulate matter with a diameter of less than or equal to 2.5 microns; PM₁₀ = particulate matter with a diameter of less than or equal to 10 microns; SO_x = sulfur oxides; VOC = volatile organic compound

In the past, a combination of the CAA Prevention of Significant Deterioration Rule's 250-ton-per-year threshold for new or modified stationary sources and the General Conformity Rule's regional significance threshold of 10 percent of the region's emissions has often been used to indicate significance/nonsignificance for air quality impacts. However, the USEPA recently promulgated a revised General Conformity Rule that abolished the regional significance threshold for federal actions in nonattainment or maintenance areas ("Revisions to the General Conformity Regulations," 75 *Federal Register* 17254, April 5, 2010). Given that change, as well as other considerations, a slightly different methodology is being used for this EA.

In order to evaluate air emissions and their impact on the ROI, the emissions associated with the project activities were compared with the total emissions on a pollutant-by-pollutant basis for the ROI's 2002 NEI data. Potential impacts to air quality were evaluated with respect to the extent, context, and intensity of the impact in relation to relevant regulations, guidelines, and scientific documentation. The CEQ defines significance in terms of context and intensity (40 CFR 1508.27). Thus, the significance of the action must be analyzed in respect to the setting of the Proposed Action and relative to the severity of the impact. The CEQ NEPA regulations (40 CFR 1508.27[b]) provide 10 key factors to consider in determining an impact's intensity.

To provide for a more conservative analysis, Okaloosa County was selected as the ROI instead of the USEPA-designated air quality control region, which is a much larger area. To identify impacts, calculated air emissions were compared with the annual total emissions of Okaloosa County as represented in the 2002 NEI. The air quality analysis focused on emissions associated with construction and demolition activities.

Greenhouse Gas

Greenhouse gases are chemical compounds in the Earth's atmosphere that trap heat. Gases exhibiting greenhouse properties come from both natural and man-made sources. Water vapor, carbon dioxide (CO₂), methane, and nitrous oxide are examples of greenhouse gases that have both natural and man-made sources, while other gases such as those used for aerosols are exclusively man-made. In the United States, greenhouse gas emissions come mostly from energy use. These are driven largely by economic growth, fuel used for electricity generation, and weather patterns affecting heating and cooling needs. Energy-related CO₂ emissions resulting principally from petroleum and natural gas represent 81.3 percent of total U.S. man-made greenhouse gas emissions (U.S. Energy Information Administration, 2009).

3.1.3 Environmental Consequences

3.1.3.1 Methodology

This section discusses the potential impacts to air quality as a result of the Proposed Action and No Action Alternative. Emissions associated with flight operations and accompanying ground support and transportation, as well as emissions associated with construction, renovation, and demolition, would be the main contributors to air quality effects.

The U.S. Air Force Air Conformity Applicability Model (ACAM) was used to determine if the Proposed Action and No Action Alternative would constitute a significant impact for Okaloosa County emissions on an individual pollutant basis. As discussed in Section 3.1.2, the context and intensity of the emissions resulting under the Proposed Action were evaluated by comparing them with the total Okaloosa County emissions for each pollutant. Although a conformity determination is not required, since Okaloosa County is designated "attainment," the ACAM provides a level of consistency with respect to emissions factors and calculations.

3.1.3.2 Proposed Action

The Proposed Action would include structure construction, renovation, and demolition operations. (However, it would not include grading since the actions would occur in developed areas.) These operations would also include construction worker trips and stationary equipment (e.g., generators and saws), mobile equipment, and architectural coatings. Construction emissions are mainly related to fossil fuel combustion during use of machinery and fugitive dust emissions from ground disturbance and other physical disturbances.

As indicated in Table 3-3, the individual pollutant emissions from the Proposed Action would not exceed 1 percent of the total Okaloosa County emissions for each corresponding pollutant. The pollutant with the highest percentage is VOCs, which is approximately 0.7 percent of

Okaloosa County's total PM₁₀ emissions based on the USEPA 2002 NEI. Therefore, there would be no major impacts to air quality associated with the Proposed Action.

Table 3-3. Proposed Action Emissions

Annual Emissions Source	Criteria Pollutant (tons per year)					
	CO	NO _x	SO ₂	VOCs	PM ₁₀	PM _{2.5}
Construction, renovation, and demolition	0.04	0	0	133.75	9.66	0
Okaloosa County (ROI)	96,662	7,913	1,430	19,236	7,854	3,716
Percent of ROI	0.00	0.00	0.00	0.70	0.12	0.00

CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = particulate matter less than or equal to 10 microns in diameter; PM₁₀ = particulate matter less than or equal to 10 microns in diameter; ROI = region of influence; SO₂ = sulfur dioxide; VOC = volatile organic compound

The Proposed Action would include combustion of fossil fuels, which would lead to increased greenhouse gas emissions. However, the CEQ recommended that emissions equal to or greater than 25,000 metric tons annually should be included in NEPA assessments (CEQ, 2010). Project C&D emissions from fossil fuel combustion would not approach 25,000 metric tons. Thus, no major impacts to local or regional air quality would result from activities at Eglin AFB associated with implementation of the Proposed Action.

3.1.3.3'Po Action Alternative

Under the No Action Alternative, the FEF/FIF would not be constructed and the operations would remain in building 419. There would be no increased emissions and no impacts to the baseline emissions for the ROI under the No Action Alternative.

3.2 WATER RESOURCES

3.2.1 Definition of the Resource

Water resources include groundwater, surface waters, wetlands, floodplains, and stormwater characteristics of the study area. Figure 3-1 depicts water resources at or near the Proposed Action location.

Groundwater

Groundwater is defined by the U.S. Geological Survey (USGS) as "all subsurface water" (USGS, 2004). Subsurface water present in significant enough amounts to tap via a well is referred to as an *aquifer*. The two aquifers located under Eglin AFB are the sand and gravel aquifer and the Floridan aquifer. Eglin AFB uses only a small amount of water from the sand and gravel aquifer, but the Floridan aquifer is used extensively for drinking water. The Floridan aquifer is located below the sand and gravel aquifer and extends beneath peninsular Florida. The descriptions of the sand and gravel aquifer and Floridan aquifer given below apply to all of Eglin AFB and, therefore, to the Proposed Action.

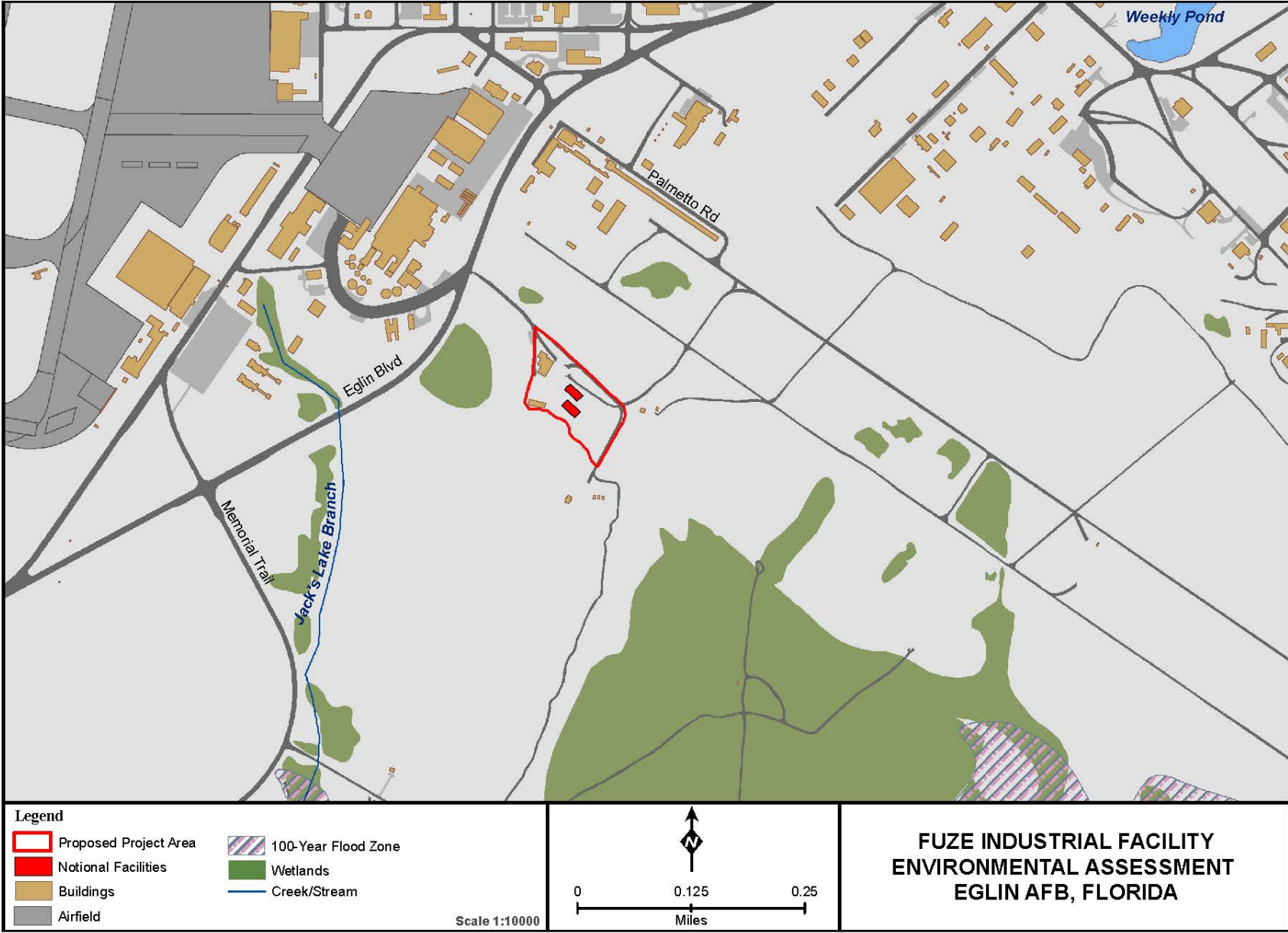


Figure 3-1. Water Resources At or Near the Proposed Action Location

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Final

Sand and Gravel Aquifer

The sand and gravel aquifer consists of Citronelle Formation and marine terrace deposits, which begin at the land surface. Water flows generally south to southeast. Water in the sand and gravel aquifer exists in generally unconfined (a free water surface or water table conditions) and confined (under pressure) conditions (USGS, 1990). The quality of water in the aquifer has been rated good (i.e., meets its intended use) by the FDEP (U.S. Air Force, 1995). Water from this aquifer is not a primary source of domestic or public supply water on Eglin AFB because of the large quantities of higher quality water available from the underlying upper limestone of the Floridan aquifer (USGS, 1990; Overing et al., 1995).

Floridan Aquifer

The Floridan aquifer consists of a thick sequence of interbedded limestone and dolomite. Water flow direction is northeast to southwest. Throughout the Eglin Reservation, the Floridan aquifer exists under confined conditions, bounded above and below by the Pensacola Clay Formation confining bed. This clay layer restricts the downward migration of pollutants and restricts saline water from Choctawhatchee Bay and the Gulf of Mexico from entering the upper limestone layer of the aquifer. The wells on Eglin AFB tap into both the sand and gravel and Floridan aquifers and are used for both potable and nonpotable supply.

Surface Water

Surface waters are susceptible to runoff from land-clearing and construction and demolition activities. Surface waters can include bays, bayous, lakes, rivers, streams, ponds, and springs.

Wetlands

Wetlands are areas of transition between terrestrial and aquatic systems where the water table is usually at or near the surface. Conversely, these can occur where shallow water covers land (USFWS, 1979). Factors such as morphology, hydrology, water chemistry, soil characteristics, and vegetation contribute to the diversity of wetland community types. The term wetlands describe marshes, swamps, bogs, and similar areas. Local hydrology and soil saturation largely affect soil formation and development, as well as the plant and animal communities found in wetland areas (USEPA, 1995). One of the most important factors in establishing and maintaining wetland processes is wetland hydrology, which is the inflow and outflow of water through a wetland and its interaction with other site characteristics (Mitsch and Gosselink, 2000).

Wetlands are defined in the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (USACE, 1987). The majority of jurisdictional wetlands (wetlands that fall under state or federal regulatory authority) in the U.S. are described using the three wetland delineation criteria: hydrophytic vegetation, hydric soils, and hydrology (USACE, 1987).

Coastal Zone

The term *coastal zone* is defined as coastal waters and adjacent shorelands strongly influenced by each other and in proximity to shorelines of several coastal states, including islands, transitional and inner tidal areas, salt marshes, wetlands, and beaches. The entire state of Florida is considered part of the coastal zone and is subject to the CZMA. Some components of the Proposed Action would take place within the jurisdictional concerns of the FDEP and would, therefore, require a consistency determination with respect to Florida's Coastal Zone Management Plan and the CZMA (Appendix A, CZMA Determination).

Stormwater

Stormwater-carried sediment can alter water quality, aquatic habitats, and hydrologic characteristics of streams and wetlands, as well as increase flooding. Land-disturbing activities (such as clearing) and the addition of impermeable surfaces (concrete, asphalt, etc.) would increase stormwater runoff. The effects, however, vary based on the amount of new impervious surface areas, topography, rainfall, soil characteristics, and other site conditions. The rate and volume of stormwater runoff has the potential to impact the quality and utility of water resources (FDEP, 2002).

3.2.2 Existing Condition

The Proposed Action location consists of developed land covered with manicured grass. To the south and west, the site is bordered by a wooded area. Existing roads border the project area on the north to southeast. Approximately 20,000 ft² of impervious surfaces exist on the site. These are associated with the existing buildings 419 and 437 and existing roads. The terrain is relatively flat with very little difference in elevation. No wetlands, surface water, or floodplains occur on the site. The nearest surface water is Jack's Lake Branch, located approximately 1,100 feet to the west. The nearest wetland area occurs approximately 140 feet to the north, and the nearest floodplains are located approximately 1 mile to the southwest and southeast (Figure 3-1).

3.2.3 Environmental Consequences

3.2.3.1 Proposed Action

The Proposed Action would not significantly affect water resources. No surface waters occur within 1,100 feet, and the nearest wetland area is 140 feet north. Soils are sandy and permeable.

Creation of roads on the site would not cause a significant impact to stormwater. Typical construction best management practices (BMPs) would be implemented as required. The impervious areas created by the proposed construction would require an NPDES permit because the total area of disturbance is greater than 1 acre. Construction on Eglin Main Base must comply with the Eglin AFB Modified Multi-Sector General NPDES Stormwater Permit (issued by the FDEP) and FAC Rule 62-25. A notice of intent would be filed with the FDEP to acquire the NPDES permit.

In addition, implementation of stormwater management BMPs may be required at the proposed construction sites to minimize on- and off-site pollution potentials. Stormwater management measures (such as retention ponds or swales) would be incorporated into the design and construction of the facility. With these measures implemented, no adverse impact to water resources would result.

This construction project required consistency with Florida's CZMA. FDEP reviewed and concurred with the Air Force negative determination for this project (Appendix A).

3.2.3.2 No Action Alternative

There would be no potential impacts to water resources under this alternative. Current activities would continue and existing facilities would remain. There would be no change to impervious surfaces or increase in stormwater flow or output.

3.3 NOISE

3.3.1 Definition of the Resource

Noise is defined as any unwanted sound. Defining characteristics of noise include sound level (amplitude), frequency (pitch), and duration. Each of these characteristics plays a role in determining the intrusiveness and level of impact of the noise on a noise receptor. The term *noise receptor* is used in this document to mean any person, animal, or object that hears or is affected by noise.

Sound levels are measured on a logarithmic decibel (dB) scale, reflecting the relative way in which differences in sound energy levels are perceived. A sound level that is 10 dB higher than another would normally be perceived as twice as loud, while a sound level that is 20 dB higher than another would be perceived as four times as loud. Under laboratory conditions, a person with normal hearing can detect a change in sound level as small as 1 dB. Under most nonlaboratory conditions, people notice changes in sound level of approximately 3 dB.

Sound measurement may be further refined through the use of frequency "weighting." A typical healthy human can detect sounds that range in frequency from about 20 hertz (Hz) to 20,000 Hz (Federal Interagency Committee on Noise [FICON], 1992). However, all sounds in this range are not heard equally well. In "A-weighted" measurements, the frequencies between 1,000 to 4,000 Hz are emphasized because these are the frequencies to which human hearing is most sensitive. Sound level measurements weighted in this way are termed *A-weighted decibels* (dBA). In the case of sonic booms, blast noise, and other impulsive "booming" noises, sound is felt as well as heard. With these types of noise, overpressure may be considered more annoying than the sound itself. For this reason, impulsive sounds are measured using "C-weighting," which does not attenuate the lower frequencies to the extent that A-weighting does. Sound level measurements weighted in this way are termed *C-weighted decibels* (dBC). Unless otherwise noted, all sound levels referenced in this EA are A-weighted.

Because both the duration and frequency of noise events also play a role in determining overall noise impact, several metrics are used that account for these factors.

- Sound exposure level (SEL) accounts for both the maximum sound level and the length of time a sound lasts. SEL does not directly represent the sound level heard at any given time. Rather, it provides a measure of the total sound exposure for an entire event compressed into 1 second. This metric is useful for comparing fast-moving and slow-moving aircraft and is a good predictor of several noise impacts, including sleep disturbance and speech interference.
- Day-night average sound level (DNL) represents aircraft noise level averaged over a 24-hour period, with a 10-dB penalty to flights occurring between 10:00 PM and 7:00 AM to account for the added intrusiveness of noise during these hours. The DNL metric does not represent the noise heard at any single point in time, but rather a weighted average level of noise events that occur over the course of a day. The DNL metric has been endorsed by several federal agencies as being the best descriptor of general noise conditions in the vicinity of airfields (USEPA, 1974; FICUN, 1980).

3.3.2 Existing Condition

The existing noise environment is typical of a military base, with sounds such as aircraft overflights, munitions detonations on test areas, and vehicle traffic. Natural sounds include wind, rain, thunder, and wildlife.

In terms of average noise, the existing environment falls within Eglin Main Base DNL noise contours of less than 70 dB DNL, as determined from Air Installation Compatible Use Zone (AICUZ) analysis (U.S. Air Force, 2006).

3.3.3 Environmental Consequences

The DoD, Air Force, and the National Institute of Occupational Safety and Health (NIOSH) all have established occupational noise exposure damage risk criteria (or “standard”) for hearing loss based on not exceeding **85 dBA as an 8-hour time weighted average**, with a 3-dB exchange rate in a work environment. (The exchange rate is an increment of decibels that requires the halving of exposure time, or a decrement of decibels that requires the doubling of exposure time. For example, a 3-dB exchange rate requires that noise exposure time be halved for each 3-dB increase in noise level. Therefore, an individual would achieve the limit for risk criteria at 88 dBA, for a time period of 4 hours, and at 91 dB, for a time period of 2 hours.)

The standard assumes “quiet” (where an individual remains in an environment with noise levels less than 72 dBA) for the balance of the 24-hour period. Also, Air Force and Occupational Safety and Health Administration (OSHA) standards prohibit any unprotected worker exposure to continuous (i.e., of a duration greater than 1 second) noise exceeding a 115-dBA sound level. OSHA established this additional standard to reduce the risk of workers developing noise-induced hearing loss.

Noise impacts would be significant if the level of noise received in the proposed facilities exceeded NIOSH occupational standards of 85 dBA within an 8-hour period. In addition to posing a human-health concern, excessive levels of noise could render the new facilities unusable.

3.3.3.1 Proposed Action

Construction and Demolition Noise

The Proposed Action would not have significant impacts on noise-sensitive receptors, because noise from C&D activities would be minor as well as temporary in nature. The nearby environment, which is dominated by flightline noise and munitions fire at TA A-22, would not be adversely impacted by short-term C&D noise.

Occupational Noise

Proposed facilities would be situated in an area of noise of between 65 and 70 dBA on average from aircraft associated with the Eglin Main airfield, at least under current conditions. Generally, buildings reduce outside noise by 18 to 27 dB, depending on whether windows would be open or closed (USACHPPM, 2005). Given the noise reduction that would be realized from the new facilities, perceived airfield noise would be reduced to at least 47 to 52 dBA within the facilities. This level of noise would not interfere with AFRL/RWMF daily activities.

AFRL/RWMF personnel would also be subject to munitions noise from the adjacent TA A-22. A noise study conducted at TA A-22 in February 2008 showed that noise levels above 85 dBA do not leave the A-22 compound to the south (Bennett, 2008). Noise dosimeter surveys conducted at the proposed construction site by Eglin Bioenvironmental in February 2011 (U.S. Air Force, 2011) showed that current noise levels do not constitute hazardous noise as defined in Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Standard 48-20, *Occupational Noise and Hearing Conservation Program*. Inside a facility built using standard construction methods, this would be further decreased by approximately 27 dB with windows closed.

Given that the FEF/FIF would be constructed employing additional sound attenuation measures, it is likely that this noise would be decreased even more. Also, personnel working inside the FIF facility where noisy activities such as welding and fabrication are commonplace, would be wearing ear protection much of the time as required by their work conditions. This would additionally minimize any impacts to personnel working in the facilities constructed under the Proposed Action.

Since the current facility (building 419) does not have sound attenuation incorporated and is characterized as having numerous holes and gaps to the outside environment, FEF/FIF personnel would likely experience a decrease in noise in their working environment. Thus, the Proposed Action would be beneficial.

3.3.3.2 No Action Alternative

There would be no change in noise impacts under the No Action Alternative.

3.4 BIOLOGICAL RESOURCES

3.4.1 Definition of the Resource

Biological resources include the native and introduced terrestrial and aquatic plants and animals found on and around Eglin AFB. The habitats of Eglin AFB are home to an unusually diverse biological community including several sensitive species and habitats (Figure 3-2).

3.4.2 Existing Condition

The project area consists entirely of the Landscaped/Urban ecological association. Occasional Florida black bears have been sighted near the site, although the nearest recorded sighting was about a half a mile away. This area is also potential gopher tortoise and indigo snake habitat. The nearest documented gopher tortoise burrow is located approximately 200 feet southeast of the project area. No red-cockaded woodpecker (RCW) trees are located at the site and the nearest is almost 2 miles away. A bald eagle nest is located just over 1 mile south of the project area. Choctawhatchee Bay, classified as Gulf sturgeon critical habitat, is located approximately 2 miles south of the project area.

3.4.3 Environmental Consequences

Biological resource impacts would be considered significant if the action is likely to jeopardize the continued existence of a species.

3.4.3.1 Proposed Action

The Proposed Action would not significantly affect biological resources. No clearing would occur to the wooded area near the site, and all construction and demolition would occur in the currently cleared area classified as Landscaped/Urban. Black bears have been sighted near the proposed location, possibly attracted to a human presence (garbage, etc.), as many more sightings are located near urbanized areas. In addition, 50 bears have been killed since 1984 by automobiles on roads that border Eglin AFB property (Eglin AFB, 2007). It is not likely that development of the Proposed Action would increase bear activity (foraging in garbage, etc.), since the activities would be the same as currently taking place in building 419. The proponent is required to notify the Eglin Natural Resources Section (96 CEG/CEVSN, 882-4164) if a black bear, gopher tortoise, or indigo snake is sighted.

Construction may also affect the state-listed gopher tortoise and federally endangered indigo snake. Although it is unlikely these species would be present due to poor habitat conditions, the 96 CEG/CEVSN would conduct surveys for these species immediately prior to commencement of construction, and any animals found would be relocated. Instructing vehicle and equipment operators to stop and allow tortoises, indigo snakes, and bears to move away from the area before continuing activities would minimize the potential for vehicle strikes.

3.4.3.2 No Action Alternative

There would be no potential impacts to biological resources under this alternative.

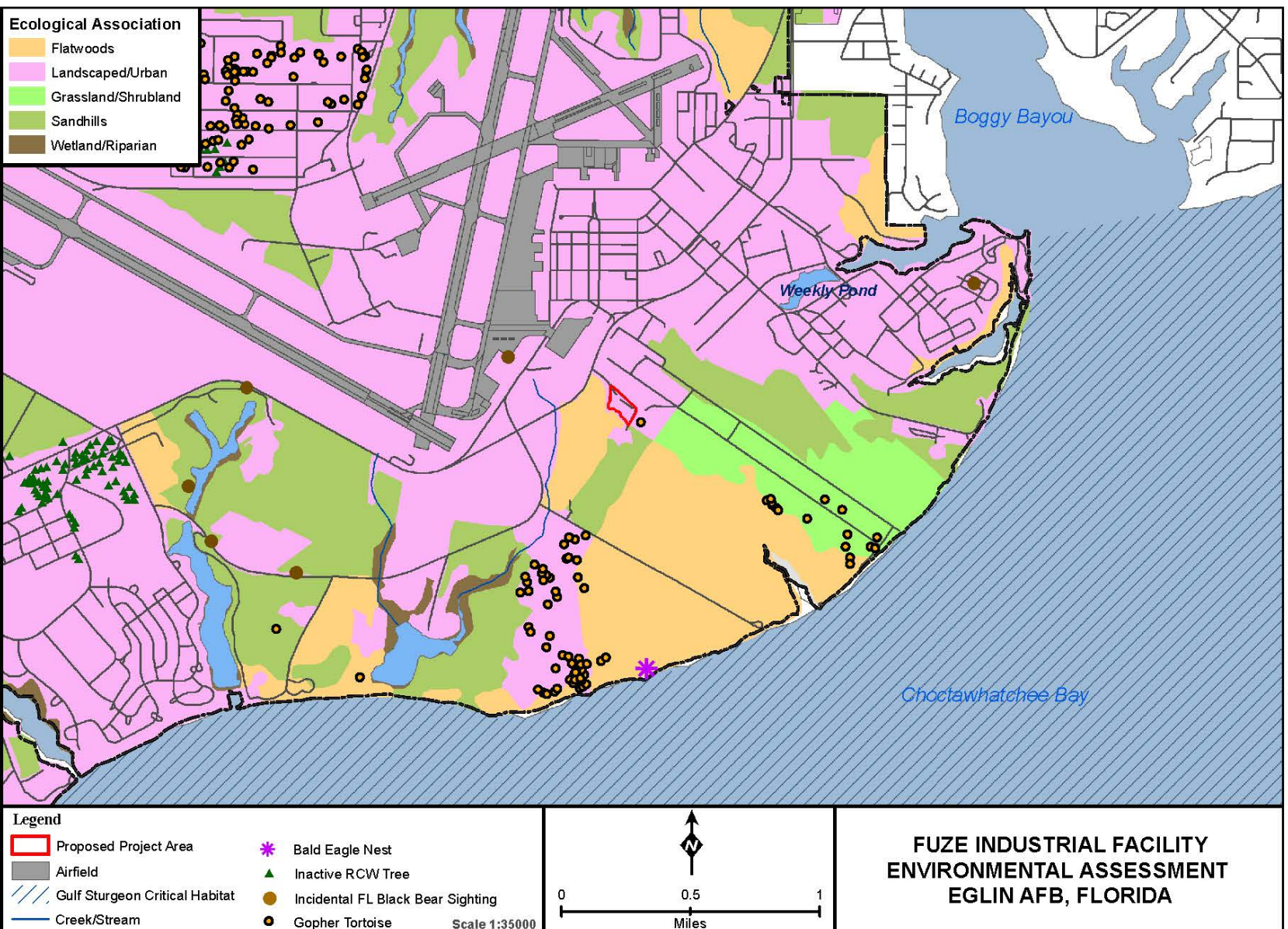


Figure 3-2. Ecological Associations and Biological Resources At or Near the Proposed Action Location

3.5 HEALTH AND SAFETY

3.5.1 Definition of the Resource

This section addresses explosive safety related to the storage or use of munitions near the project area and the hazards associated with construction in an area noted for probable UXO contamination. Issues with a potential to affect safety were evaluated relative to the degree to which the activity increases or decreases safety risks to military personnel, the public, and property.

A variety of Air Force regulations address and govern safety. These include Air Force Manual 91-201, *Explosives Safety Standards*, and AFI 91-202, *U.S. Air Force Mishap Prevention Program*.

Under 29 CFR 1960 series, OSHA standards do not apply to military-unique workplaces, operations, equipment, and systems. However, according to DoD instruction, they apply insofar as is possible, practicable, and consistent with military requirements. AFOSH standards apply unless specifically exempted by variance or determined to be an acceptable deviation.

3.5.2 Existing Condition

Explosives Safety

ESQD areas are established under Air Force Manual 91-201, *Explosives Safety Standards*. The ESQDs are separation distances between explosive storage areas such as storage igloos, handling areas such as weapon loading areas, and other areas such as “hot” cargo pads. ESQDs are based on the maximum storage capacity of each facility to prevent explosive propagation from one storage facility to another. Additionally, ESQDs are established to provide a safety zone between the explosive storage areas and the surrounding areas.

The project area sits entirely within an existing ESQD arc associated with the munitions storage facilities located to the south (Figure 3-3).

UXO

UXO is defined as any munitions device containing explosive material (i.e., live) that did not detonate upon impact with the surface but still has the potential to detonate. UXO is a potential problem in the proposed project area as a result of past testing and training activities. Eglin AFB has been testing munitions for over 60 years. While UXO is an unintended but unavoidable consequence of any operation involving energetic material, only recently has the Air Force published standards for munitions residue maintenance, remediation, and documentation.

Eglin has conducted an archive search to document the locations of formerly used ranges but has yet to conduct any basewide assessment of UXO contamination suitable to support an analysis of risk to training units.

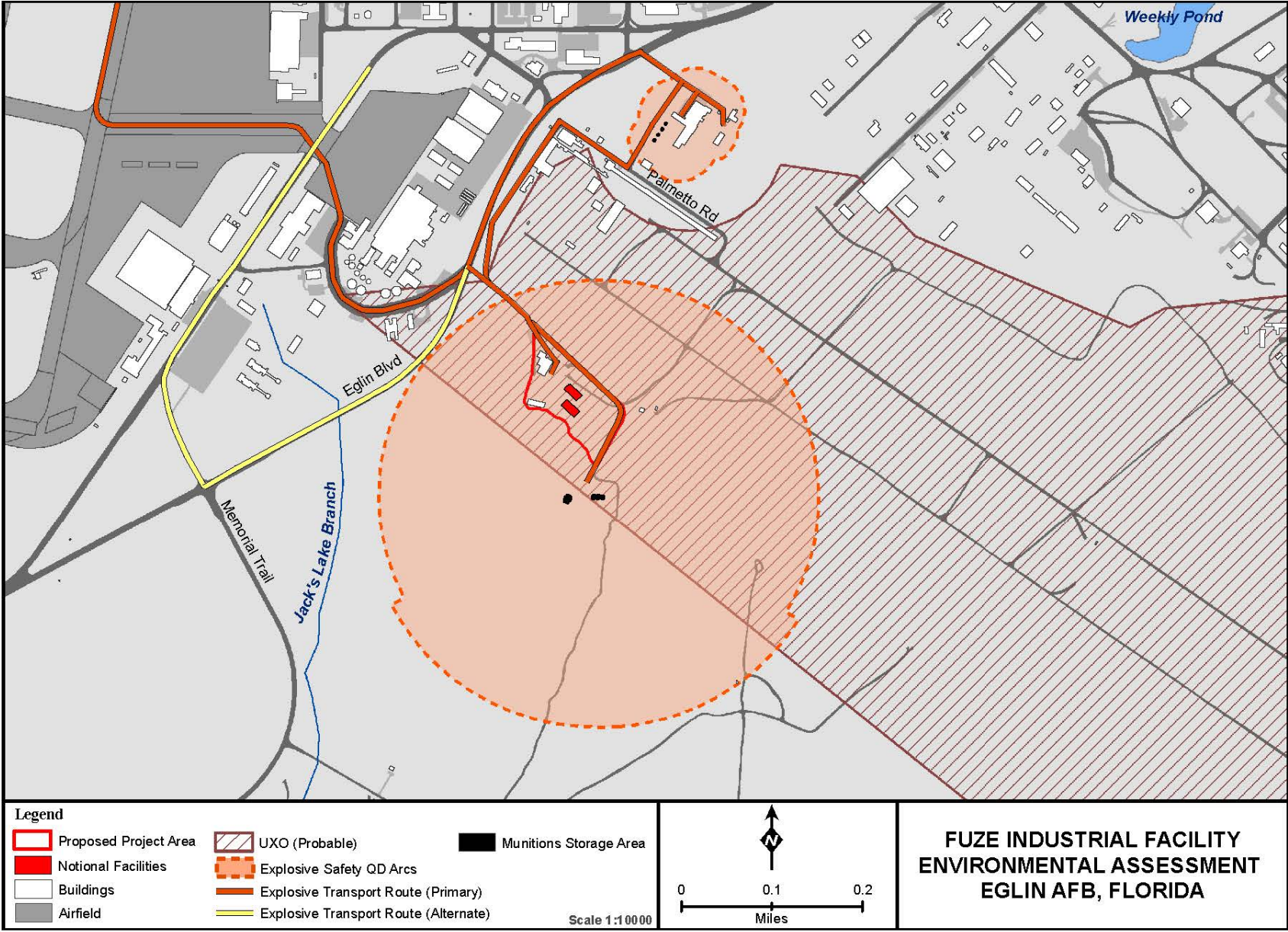


Figure 3-3. Safety Issues Associated With the Proposed Action Project Area

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The project area is known to have been used for munitions testing and, therefore, is considered likely to be contaminated with UXO (Figure 3-3).

3.5.3 Environmental Consequences

3.5.3.1 Proposed Action

Explosives Safety

Although the new facilities would be constructed in an existing ESQD arc, the existing facility is also included in this arc and, under current explosives safety policies and procedures, has experienced no adverse impacts.

As part of the planning for the construction of new facilities in this area, Explosive Site Plan packages have been submitted in accordance with Air Force Manual 91-201, *Explosives Safety Standards*. These Explosive Site Plans illustrate the relationships and requirements between surrounding exposures and the facilities being sited. No adverse impacts to explosive safety from implementation of the Proposed Alternative are anticipated.

UXO

Under the Proposed Action, the possibility of encountering UXO would be of particular concern for the safety of construction crews. The entire project area is classified as having probable UXO contamination.

To mitigate any potential adverse impacts from UXO, consultation and coordination with the 96th Civil Engineering Squadron/Explosive Ordnance Disposal (96 CES/CED) would be required prior to commencement of any activity associated with the development on, or use of, these areas. All actions would be accomplished by technically qualified personnel and would be conducted in accordance with applicable Air Force safety requirements, approved technical data, and AFOSH standards. Construction crews would be briefed on the dangers of UXO and identification of UXO prior to commencing construction. Should construction crews discover anything that potentially constitutes UXO, all work would immediately cease, and the 96 CES/CED would be contacted.

During construction, industrial safety standards and best management practices (BMPs) would be followed. These would include measures for personal protective equipment (PPE), including hearing protection, as well as safety measures for heavy equipment use. UXO and general safety briefings would be conducted periodically. Consultation and coordination with 96th Civil Engineering Squadron (96 CES/CED) would mitigate any potential adverse impacts to Eglin AFB personnel from UXO. Thus, no unusual safety risks are expected from proposed activities.

3.5.3.2 No Action Alternative

There would be no impacts to safety impacts due to explosives or UXO as a result of the No Action Alternative.

3.6 UTILITIES

3.6.1 Definition of the Resource

The utilities described and analyzed for potential impact include potable water, wastewater, electricity, and natural gas. The description of each utility and the impact analysis focus on the existing infrastructure (e.g., wells, water systems, wastewater treatment plants), current utility use, and any pre-defined capacity or limitations as set forth in permits or regulations. A comparison is made between the amount of the utility being used, regulatory limitations on consumption, and how implementation of the Proposed Action would affect those factors.

3.6.2 Existing Conditions

The Northwest Florida Water Management District regulates the quantity of water drawn from the aquifers by issuing consumptive use permits. Water consumption is measured and must stay within all of these permitted limits. The three most important measures for adhering to the consumptive use permit authorizations are the average daily amount used, the maximum daily amount used, and the maximum monthly amount of water used by the entire water system.

Wastewater is water that has been used and contains dissolved or suspended waste materials. The waste materials include a wide variety of pollutants such as human excreta, food waste, soaps, detergents, and other cleaning materials. Before the wastewater can be released into waterways, it is treated at wastewater treatment plants to get rid of the pollutants. Currently, wastewater from building 419 is managed using a septic system.

Electrical cables currently run to building 419 in the vicinity of the project area to the south. The nearest natural gas line is located to the north of the project area in the vicinity of Eglin Boulevard and the McKinley Climatic Laboratory (Figure 3-4).

3.6.3 Environmental Consequences

Utilities impacts would be considered significant if the action is likely to exceed any previously defined capacities or limitations as set forth in permits or regulations.

3.6.3.1 Proposed Action

There would be no adverse impacts to utilities at Eglin AFB under the Proposed Action. Due to the age of the existing facility and the development of more efficient construction methods and appliances, implementation of the Proposed Action is likely to decrease electrical and water consumption from the current state. Likewise, making connection to the main wastewater line allows water to be processed and reused, unlike the current septic system.

3.6.3.2 No Action Alternative

There would be no adverse impacts to utilities at Eglin AFB under the No Action Alternative. However, water use and energy consumption are likely to remain higher than necessary due to the inefficiencies of the existing facility.

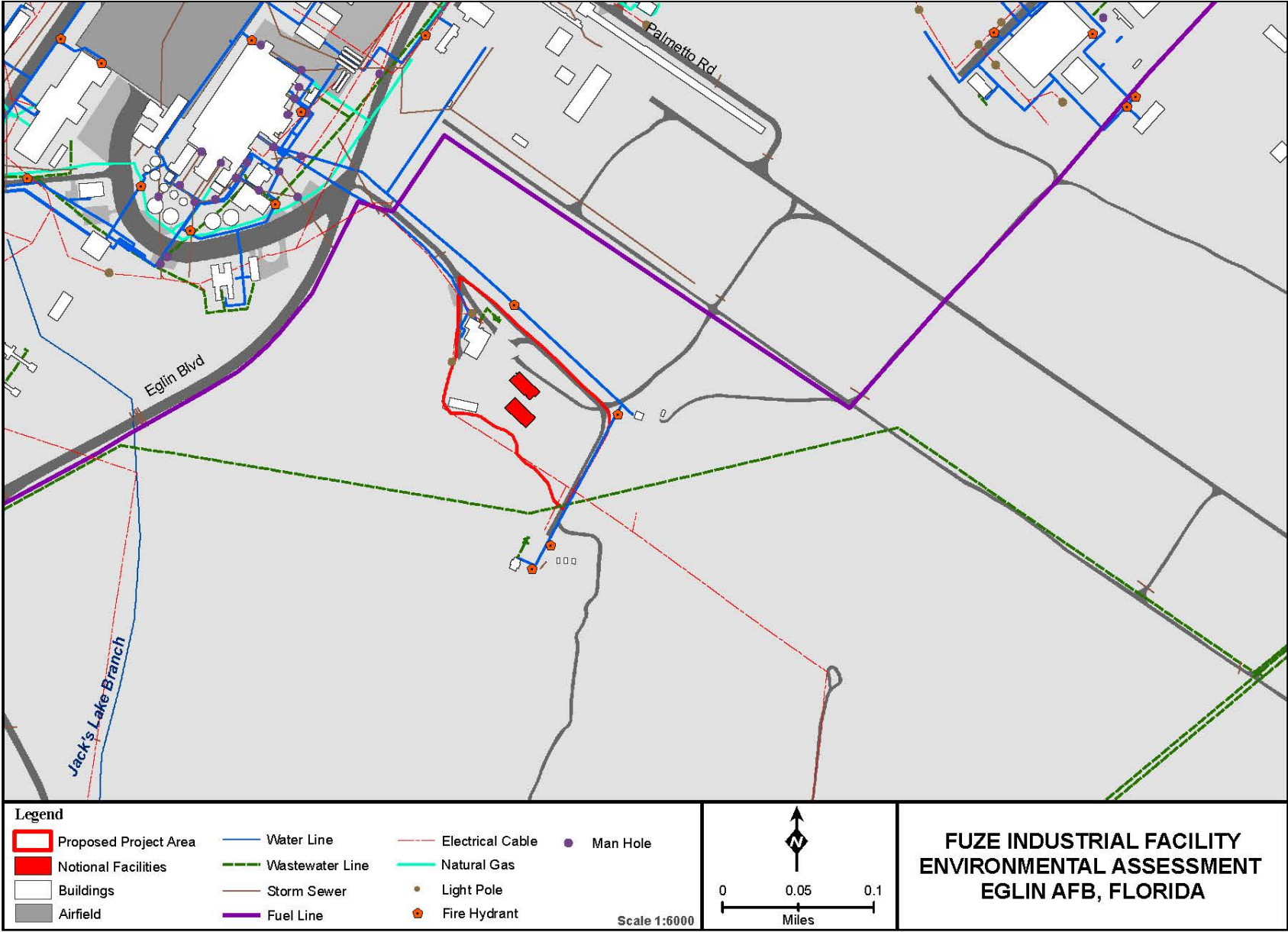


Figure 3-4. Existing Utilities in the Vicinity of the Proposed Project Area

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Final

4. CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

According to the CEQ regulations, cumulative impact analysis in an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7).

40 CFR 1508.7 defines impacts or effects as:

- (a) Direct effects, which are caused by the action and occur at the same time and place.
- (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

4.1 PAST AND PRESENT ACTIONS

The Air Force has not identified any other past or present actions that are relevant to the current Proposed Action. Other future actions planned include implementation of the Base Realignment and Closure (BRAC) decisions made in 2005 for Eglin AFB.

4.2 REASONABLY FORESEEABLE FUTURE ACTIONS

A Record of Decision (ROD) was signed in February 2009 for the 2005 BRAC decision to establish the Joint Strike Fighter (JSF) Initial Joint Training Site (IJTS) at Eglin AFB for joint Air Force, Navy, and Marine Corps JSF training organizations to teach aviators and maintenance technicians how to properly operate and maintain this new weapons system. A Supplemental Environmental Impact Statement is currently under way to analyze options for new runways or reconfiguring existing Eglin runways to accommodate additional aircraft. As part of the plan 200 instructors would relocate to Eglin AFB. Potential impacts from these programs due to changing mission and additional personnel may include noise, air quality, munitions storage concerns, transportation, and utilities concerns, among others. In particular, some of the alternatives may result in additional noise impacts to the proposed FEF/FIF. The 7th Special Forces Group (Airborne), i.e., the 7SFG(A), cantonment and training areas would not overlap with the Proposed Action location.

4.3 ANALYSIS OF CUMULATIVE IMPACTS

4.3.1 Air Quality

With the project proposed in this EA, along with the Fort Walton Beach-Niceville Bypass and Eglin AFB BRAC projects, pollutant emissions would increase. This increase in pollutants

would be due to construction projects, an influx of people to the area, and introduction of the JSF IJTS and associated aircraft. Construction emissions are expected to be the primary cause for increased emissions, which would be a temporary, short-term effect. The increase in population from the BRAC recommendations would be a permanent increase in air emissions from personally owned vehicle emissions. These emissions are expected to be minimal as compared with Okaloosa, Santa Rosa, and Walton County emissions. No cumulative, permanent adverse impacts to regional air quality are expected.

4.3.2 Noise

The Proposed Action of constructing the FEF/FIF in combination with other foreseeable actions would not result in significant cumulative noise impacts to the local community, nor does it appear the noise from the JSF, as evaluated in the BRAC SEIS, would result in significant noise impacts to the FEF/FIF, given the proposed sound attenuation measures incorporated into the construction of the facilities.

Rather, the construction of new facilities with sound attenuation measures would likely decrease any noise impacts to FEF/FIF personnel. However, these scenarios may not ultimately be implemented, and any additional JSF airfield options developed after the writing of this EA would need to consider the impact on the FEF/FIF operations.

4.3.3 Biological Resources

There would not be significant cumulative impacts to biological resources. The area potentially affected is composed entirely of the landscaped/urban area. No loss of quality wildlife habitat would occur as a result of the Proposed Action. Prior to any project activity, Eglin Natural Resources personnel would survey the area for gopher tortoises, and relocate this species as necessary. No significant cumulative impacts to gopher tortoises from this and other actions would occur as a result of this precautionary measure.

4.3.4 Utilities

There would not be significant cumulative impacts to utilities either on Eglin AFB or in the northwest Florida region. The Proposed Action would likely improve the current utility usage at the existing facility. No new activities are planned that would contribute to cumulative impacts to utilities.

4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that EAs include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the Proposed Action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site).

Environmental consequences as a result of this project are considered short term and temporary. Construction activities would require consumption of limited amounts of materials typically associated with interior and exterior construction (e.g., concrete, wiring, piping, insulation, and windows). The Air Force does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, the Air Force does not consider these amounts to be appreciable and does not expect them to affect the availability of these resources.

4.4.1 No Action Alternative

Under the No Action Alternative, the proponent would continue to utilize the existing facility in building 419. However, this facility is extremely deficient and may represent serious health risks to personnel. No irretrievable or irreversible commitment of resources would occur under the No Action Alternative.

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5. PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of regulations, plans, permits, and management actions associated with the Proposed Action. The environmental impact analysis process for this EA identified the need for these requirements, and the proponent and interested parties involved in the Proposed Action cooperated to develop them. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

5.1 REGULATIONS, PLANS, AND PERMITS

- CZMA Consistency Determination (Appendix A)
- Erosion, Sedimentation, and Pollution Control Plan
- FDEP Environmental Resource Permit
- FDEP NPDES Permit

5.2 MANAGEMENT ACTIONS

The proponent is responsible for implementation of the following management actions.

5.2.1 Water Resources

The proponent would ensure that the design engineer coordinates with the 96th Civil Engineer Group/Environmental Compliance Branch (96 CEG/CEVC) (882-7760) for final stormwater design and permitting.

The proponent would ensure that the construction contractor implements the following stormwater and erosion control BMPs.

- Silt fences and hay bales may be required during construction to avoid soil runoff.
- Inspect BMPs on a weekly basis and after rain events. Replace fencing as needed.
- In permits and site plan designs, include site-specific management requirements for erosion and sediment control.
- For construction equipment (e.g., cement mixers), designate "staging areas" to contain any chemicals, solvents, or toxins and prevent them from entering surface waters.
- Stabilize the construction site entrance using stone and geotextile (filter fabric) that is approved by the Florida Department of Transportation.
- Inspect and maintain the aforementioned BMPs to ensure effectiveness.

5.2.2 Biological Resources

- The 96 CEG/CEVSN personnel would perform a gopher tortoise survey prior to any construction or disturbance.
- The proponent would notify the 96 CEG/CEVSN (882-4164) if a black bear, gopher tortoise, or indigo snake is sighted.

5.2.3 Health and Safety

Should any suspected UXO be inadvertently discovered during the course of grading or construction, all actions in the immediate vicinity would cease and construction crews would immediately contact the 96 CES/CED.

5.2.4 Cultural Resources

Should archaeological materials be inadvertently discovered during the land clearing, all actions in the immediate vicinity would cease and efforts would be taken to protect the find from further impact.

6. LIST OF PREPARERS

Name/Qualifications	Contribution	Experience
Boykin, Brad Environmental Scientist B.S. Biomedical Science MBT Biotechnology	Author, Technical Lead	6 years, biotechnology and chemistry
McLaurine, Henry Environmental Scientist M.S. Biology B.S. Environmental Science	Technical Reviewer	16 years, environmental science, air quality
Nation, Michael Environmental Scientist B.S. Environmental Science/Policy	GIS Analyst	9 years, environmental science and GIS Arc View applications

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7. REFERENCES

- Bennett, R., 2008. Noise Survey of Test Area A-22. Survey Results Form DD 2214 provided by Craig R. Bennett, USAF. Performed on August 13, 2008.
- Council on Environmental Quality (CEQ), 2010. "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Green House Gas Emissions." Memorandum for Heads of Federal Departments and Agencies. February 18, 2010.
- Eglin AFB, 2007. Outdoor Recreation, Hunting, and Fresh Water Fishing Map and Regulations, 2006-2007, Eglin AFB, Florida.
- Federal Interagency Committee on Noise (FICON), 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.
- Federal Interagency Committee on Urban Noise (FICUN), 1980. Guidelines for Considering Noise in Land Use Planning and Control. Washington, D.C. NIIS PB83-184838. June 1980.
- Florida Department of Environmental Protection (FDEP), 2002. *Florida Stormwater, Erosion, and Sedimentation Control Inspector's Manual*. Technical Report.
- Florida Department of Environmental Protection (FDEP), 2011. Okaloosa County 2011 Air Monitor Site. Accessed online at <http://appprod.dep.state.fl.us/air/flaqs/sitedetail.asp?SiteID=120910002&RequestYear=>. 10 February 2011.
- Mitsch, W. J., and J. G. Gosselink, 2000. *Wetlands*, 3rd Edition. John Wiley & Sons: New York.
- Overing, J. D., H. H. Weeks, J. P. Wilson, Jr., J. Sullivan, and R. D. Ford, 1995. *Soil Survey of Okaloosa County, Florida*. USDA, Natural Resources, Soil Conservation Service.
- U.S. Air Force, 1995. *Environmental Baseline Study Resource Appendices*. Prepared by Earthtech for the Air Force Development Test Center (AFDTC), 46th Test Wing, Range Environmental Planning Office (46TW/XPE), Eglin Air Force Base, Florida.
- U.S. Air Force, 2003. Air Force Instruction 32-7044, *Storage Tank Compliance*. November 2003.
- U.S. Air Force, 2004. *Integrated Cultural Resources Management Plan*. Eglin AFB, FL. September 2004.
- U.S. Air Force, 2006. *Air Installation Compatible Use Zone Study*. Eglin AFB, FL. March.
- U.S. Air Force, 2011. Personal communication via electronic mail from Ms. Tonya Savage, AFRL Munitions Directorate, Environmental/Occupational Health, at Eglin AFB, to Mr. Bradley Boykin, SAIC. February 14, 2011.

References

- U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), 2005. *Operational Noise Management: An Orientation Handbook for Army Facilities*. November 2005.
- U.S. Army Corps of Engineers (USACE), 1987. *Wetlands Delineation Manual*. Wetlands Research Program Technical Report Y-87-1. Waterways Experiment Station.
- U.S. Energy Information Administration, 2009. "Emissions of Greenhouse Gases Report." Produced by the National Energy Information Center, Energy Information Administration. Available on the Internet at <http://www.eia.doe.gov/oiaf/1605/ggrpt/index.html#ercde>. Accessed on November 17, 2010.
- U.S. Environmental Protection Agency (USEPA), 1974. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." Office of Noise Abatement and Control. EPA Report 550/9-74-004.
- U.S. Environmental Protection Agency (USEPA), 1995. *America's Wetlands: Our Vital Link Between Land and Water*.
- U.S. Environmental Protection Agency (USEPA), 2002. USEPA 2002 National Emissions Inventory (NEI) Microsoft Access database. Retrieved at <http://www.epa.gov/ttn/chief/net/2002inventory.html#inventorydata> in May 2006.
- U.S. Environmental Protection Agency (USEPA), 2010a. Currently Designated Nonattainment Areas for All Criteria Pollutants. Accessed online at <http://www.epa.gov/air/oaqps/greenbk/anc13.html>. December 17, 2010.
- U.S. Environmental Protection Agency (USEPA), 2010b. National Ambient Air Quality Standards (NAAQS). Accessed online at <http://www.epa.gov/air/criteria.html>. June 3, 2010.
- U.S. Fish and Wildlife Service (USFWS), 1979. *National Wetlands Inventory Classification for Wetlands and Deepwater Habitats of the United States*.
- U.S. Geological Survey (USGS), 1990. *Groundwater Atlas of the United States*. Alabama, Florida, Georgia and South Carolina. HA 730-G.
- U.S. Geological Survey (USGS), 2004. Water Basics Glossary. Retrieved from http://capp.water.usgs.gov/GIP/h2o_gloss, on March 12, 2007.

APPENDIX A

COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION

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FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

Introduction

This document provides the State of Florida with the U.S. Air Force's Consistency Determination under CZMA Section 307 and 15 Code of Federal Regulations (CFR) Part 930 sub-part C. The information in this Consistency Determination is provided pursuant to 15 CFR Section 930.39 and Section 307 of the Coastal Zone Management Act, 16 United States Code (USC) Section 1456, as amended, and its implementing regulations at 15 CFR Part 930.

This federal consistency determination addresses the Proposed Action to construct a new Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF) on Eglin Air Force Base (AFB), Florida.

Proposed Federal agency action:

The FEF/FIF provides the facilities and infrastructure for approximately 12 full-time Air Force Research Laboratory (AFRL) personnel engaged in research, development, testing, and evaluation activities for specialized detonators for explosives (fuzes). The Proposed action is to relocate the AFRL personnel and activities from its current location in building 419 to two new facilities to be constructed in a nearby developed area southeast of the current building 419 (Figures 1 and 2). Facilities would be single-story with reinforced concrete foundations, metal siding over steel frames, and sloped standing seam metal roofs. Facilities would comply with Department of Defense (DoD) force protection requirements according to unified facilities criteria. The total building construction area is 9,700 square feet (ft²). Associated paved roads and parking totaling 43,800 ft² would also be constructed to support the facilities. Existing substandard facilities totaling 8,800 ft² would be demolished. For this proposed action, an overall project area of 5 acres may be disturbed by construction and demolition activities. The proposed site for new facility is currently undeveloped and clear of trees and significant vegetation (Figure 3).

Federal Review

Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the Proposed Action are discussed in the following table.

Pursuant to 15 CFR § 930.41, the Florida State Clearinghouse has 60 days from receipt of this document in which to concur with, or object to, this Consistency Determination, or to request an extension, in writing, under 15 CFR § 930.41(b). Florida's concurrence will be presumed if Eglin AFB does not receive its response on the 60th day from receipt of this determination.

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
Chapter 161 <i>Beach and Shore Preservation</i>	<p>The Proposed Action would not affect beach and shore management, specifically as it pertains to:</p> <ul style="list-style-type: none"> • The Coastal Construction Permit Program. • The Coastal Construction Control Line (CCCL) Permit Program. • The Coastal Zone Protection Program. <p>All activities would occur on federal property.</p>	Authorizes the Bureau of Beaches and Coastal Systems within DEP to regulate construction on or seaward of the states' beaches.
Chapter 163, Part II <i>Growth Policy; County and Municipal Planning; Land Development Regulation</i>	The proposed action occurs on federal property and is not anticipated to adversely affect local government comprehensive plans as they pertain to public interest.	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.
Chapter 186 <i>State and Regional Planning</i>	The Proposed Action would not affect state plans for water use, land development, or transportation.	Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252 <i>Emergency Management</i>	<p>The Proposed Action would not affect the state's vulnerability to natural disasters.</p> <p>The Proposed Action would not affect emergency response and evacuation procedures.</p>	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.
Chapter 253 <i>State Lands</i>	All activities would occur on federal property; therefore the Proposed Action would not affect state public lands.	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.
Chapter 258 <i>State Parks and Preserves</i>	The Proposed Action would not affect state parks, recreational areas and aquatic preserves.	Addresses administration and management of state parks and preserves.

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
Chapter 259 <i>Land Acquisition for Conservation or Recreation</i>	The Proposed Action would not affect tourism and/or outdoor recreation.	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.
Chapter 260 <i>Recreational Trails System</i>	The Proposed Action would not include the acquisition of land and would not affect the Greenways and Trails Program.	Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system.
Chapter 375 <i>Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation</i>	The Proposed Action would not affect opportunities for recreation on state lands.	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs.
Chapter 267 <i>Historical Resources</i>	No cultural resources are known to exist in the area of the proposed action. All ground- disturbing activities at Eglin must be subject to prior consultation with and approval by Eglin's Cultural Resources Branch (96 CEG/CEVH), which oversees and maintains records on all cultural resource activities on the further impact.	Addresses management and preservation of the state's archaeological and historical resources.
Chapter 288 <i>Commercial Development and Capital Improvements</i>	The Proposed Action would not affect future business opportunities on state lands, or the promotion of tourism in the region.	Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy.
Chapter 334 <i>Transportation Administration</i>	The Proposed Action would not affect transportation.	Addresses the state's policy concerning transportation administration.
Chapter 339 <i>Transportation Finance and Planning</i>	The Proposed Action would not affect the finance and planning needs of the state's transportation system.	Addresses the finance and planning needs of the state's transportation system.
Chapter 370 <i>Saltwater Fisheries</i>	The Proposed Action would not affect saltwater fisheries.	Addresses management and protection of the state's saltwater fisheries.
Chapter 372 <i>Wildlife</i>	The proposed action is in a previously disturbed area.	Addresses the management of the wildlife resources of the state.

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
	<p>While some species of concern have been historically noted in the vicinity of the project area, the project is not expected to impact sensitive species or sensitive habitat. Prior to construction a gopher tortoise survey would be required. Eglin Natural Resources would survey and relocate any gopher tortoises found. Best Management Practices (BMPs) will be utilized to minimize any potential impact from the proposed construction. The proposed action would be consistent with the state's policies concerning management of wildlife resources.</p>	
<p>Chapter 373 <i>Water Resources</i></p>	<p>There are no wetlands or floodplains within or adjacent to the construction site.</p> <p>The Proposed Action would require an Erosion, Sedimentation, and Pollution Control Plan, commonly referred to as a Stormwater Pollution Prevention Plan (SWPPP), as a requirement of the National Pollutant Discharge Elimination System (NPDES) stormwater construction permit (Florida Administrative Code [FAC] 62-621.300(4)). The project would also require an Environmental Resource Permit. Impervious surface area would increase resulting in an increase in stormwater runoff; therefore the project would require a design and construction permit in accordance with FAC Rule 62-25. The project would require a</p>	<p>Addresses the state's policy concerning water resources.</p>

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope	
	<p>Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction.</p> <p>All plans and permits would be coordinated through the Eglin Environmental Engineering Section (Water Resources) (96 CEG/CEVCE). Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding the water resources of the state.</p>		
Chapter 376 <i>Pollutant Discharge Prevention and Removal</i>	<p>Fuel storage would comply with Air Force Instruction (AFI) 32-7044, <i>Storage Tank Compliance</i>, for all aspects of installation, inspection, spill response, clean up, and reporting. The Proposed Action would be consistent with Florida's statutes and regulations regarding the transfer, storage, or transportation of pollutants.</p>	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.	
Chapter 377 <i>Energy Resources</i>	<p>The Proposed Action would not affect energy resource production, including oil and gas, and/or the transportation of oil and gas.</p>	Addresses regulation, planning, and development of oil and gas resources of the state.	
Chapter 380 <i>Land and Water Management</i>		<p>The Proposed Action would not affect development of state lands with regional (i.e. more than one county) impacts. The Proposed Action would not include changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction.</p>	<p>Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.</p>

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope	
Chapter 381 <i>Public Health, General Provisions</i>		The Proposed Action would not affect the state's policy concerning the public health system.	Establishes public policy concerning the state's public health system.
Chapter 388 <i>Mosquito Control</i>		The Proposed Action would not affect mosquito control efforts.	Addresses mosquito control effort in the state.
Chapter 403 <i>Environmental Control</i>		The Proposed Action would be consistent with Florida's statutes and regulations regarding water quality, air quality, pollution control, solid waste management, or other environmental control efforts.	Establishes public policy concerning environmental control in the state.
Chapter 582 <i>Soil and Water Conservation</i>		<p>The Proposed Action is expected to disturb up to 5 acres of land. Project implementation will include identification of appropriate controls, BMPs, and measures to minimize the stormwater impact. Practices such as silt fences and hay bales will be implemented during site preparation and construction activities to minimize stormwater effects related to soil disturbance. In addition, a comprehensive Stormwater, Erosion, and Sedimentation Plan would be required.</p> <p>Eglin Water Resources (96 CEG/CEVCE) would ensure that any applicable permitting requirements would be satisfied in accordance with Florida Administrative Code. Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding the water resources of the state.</p>	Provides for the control and prevention of soil erosion.

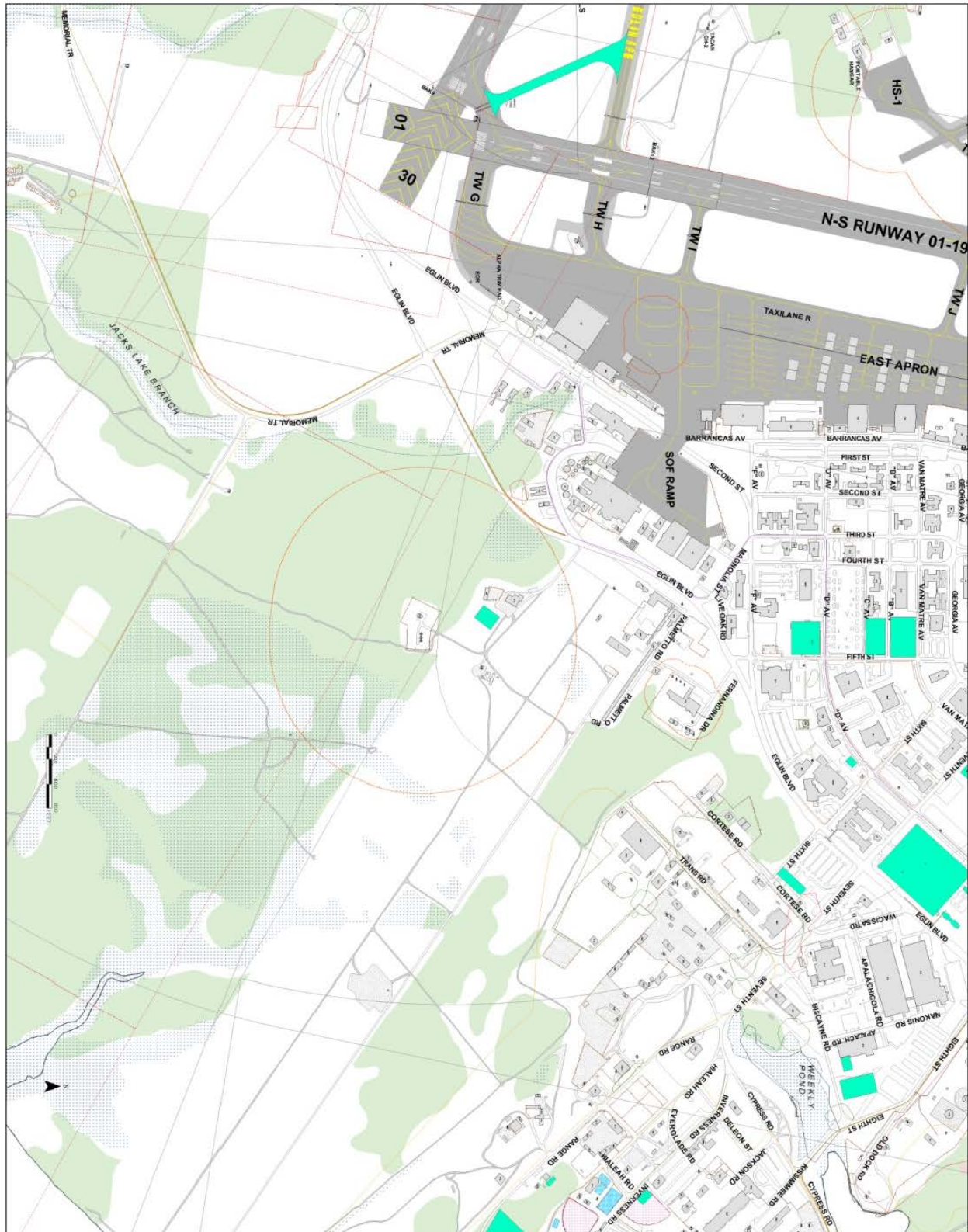


Figure 1. Proposed Location of New FEF/FIF on Eglin AFB

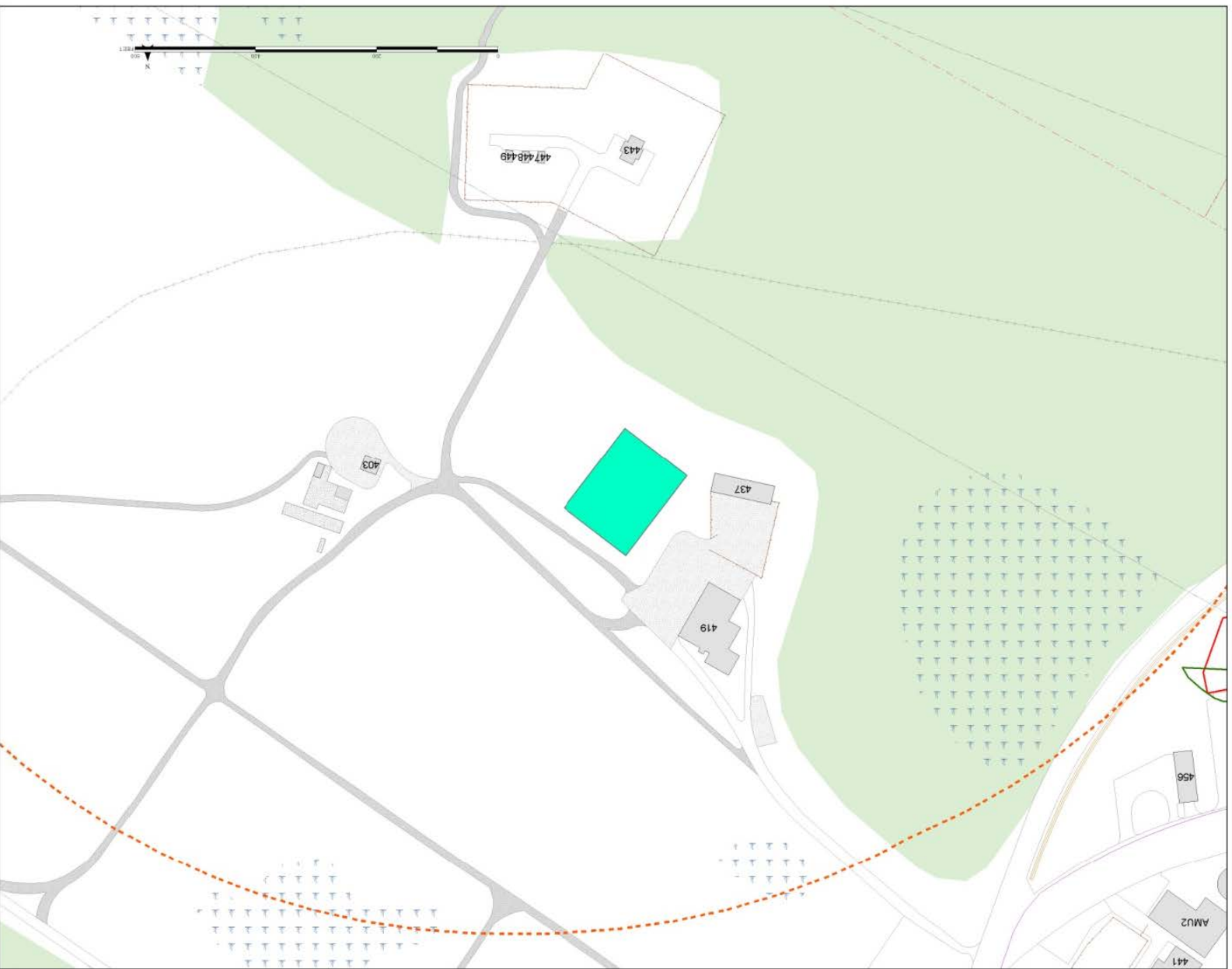


Figure 2. Proposed Location of New FEF/FIF in Relation to Current Bldg. 419



Figure 3. Photograph of Proposed Site for New FEF/FIF

Boykin, Bradley S.

From: Nunley, Jerry M Mr CTR USAF AFMC 96 CEG/CEVSN [jerry.nunley.ctr@eglin.af.mil]
Sent: Tuesday, March 08, 2011 7:16 AM
To: Boykin, Bradley S.
Subject: FW: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

-----Original Message-----

From: Milligan, Lauren [mailto:Lauren.Milligan@dep.state.fl.us]
Sent: Monday, March 07, 2011 3:53 PM
To: Knight, Kelly E CTR USAF AFMC 96 CEG/CEVSNW
Cc: Miller, Bob CIV USAF AFMC 96 CEG/CEVSNW; Nunley, Jerry M Mr CTR USAF AFMC 96 CEG/CEVSN
Subject: RE: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Ms. Kelly E. Knight

Environmental Scientist, SAIC

Eglin AFB - 96 CEG/CEVSNW

107 Highway 85 North

Niceville, FL 32578

RE: Department of the Air Force - Environmental Assessment - Construct a New Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF) on Eglin Air Force Base - Okaloosa County, Florida.

SAI # FL201103075676C

Dear Kelly:

Florida State Clearinghouse staff has reviewed the Air Force's FEF/FIF proposal under the following authorities: Presidential Executive Order 12372; Section 403.061(40), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

As noted in the submittal, the project may require an Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NFWFMD) per Chapter 62-346, Florida Administrative Code. Please contact the NFWFMD's Crestview Field Office at (850) 683-5044 for further assistance and permitting information. In addition, an NPDES permit will likely be required from the Department's NPDES Stormwater Program in Tallahassee - please call (850) 245-7522 for additional information.

Based on the information contained in the submittal and minimal project impacts, the state has determined that, at this stage, the proposed activities are consistent with the Florida Coastal Management Program (FCMP). The state's continued concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of any issues identified during subsequent regulatory reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process in accordance with Section 373.428, Florida Statutes.

Thank you for the opportunity to review the proposed project. Should you have any questions or need further assistance, please don't hesitate to contact me at (850) 245-2170 or Lauren.Milligan@dep.state.fl.us.

Yours sincerely,

Lauren P. Milligan

Lauren P. Milligan, Environmental Manager Florida State Clearinghouse Florida Department of Environmental Protection 3900 Commonwealth Blvd, M.S. 47 Tallahassee, FL 32399-3000 ph. (850) 245-2170 fax (850) 245-2190

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey <http://survey.dep.state.fl.us/?refemail=Lauren.Milligan@dep.state.fl.us> . Thank you in advance for completing the survey.

From: Knight, Kelly E CTR USAF AFMC 96 CEG/CEVSNW [<mailto:Kelly.Knight.ctr@eglin.af.mil>]
Sent: Thursday, March 03, 2011 10:04 AM
To: Milligan, Lauren
Cc: Miller, Bob CIV USAF AFMC 96 CEG/CEVSNW; Nunley, Jerry M Mr CTR USAF AFMC 96 CEG/CEVSN
Subject: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Ms. Lauren Milligan, Environmental Manager, Florida State Clearinghouse Florida Department of Environmental Protection 3900 Commonwealth Boulevard, M.S. 47 Tallahassee, FL 32399-3000

Department of the Air Force - Consistency Determination - New Fuze Experimentation Facility and Fuze Industrial Facility on Eglin Air Force Base (AFB), Okaloosa County, Florida

Dear Lauren:

Attached is the U.S. Air Force's proposal to provide the Florida Department of Environmental Protection (FDEP) with details for the construction of a new Fuze Experimentation Facility and Fuze Industrial Facility on Eglin AFB.

The Proposed action is to relocate the AFRL personnel and activities from its current location in building 419 to two new facilities to be constructed in a nearby developed area. For this proposed action, an overall project area of 5 acres may be disturbed by construction and demolition activities.

The attached Coastal Zone Management Act (CZMA) Consistency Determination details the Proposed Action.

We are submitting this CZMA Consistency Determination under 15 C.F.R.930.41.

Florida State Clearinghouse has 60 days from receipt of this document in which to concur with, or object to, this Consistency Determination, or to request an extension, in writing, under 15 C.F.R. § 930.41(b). However, the Air Force requests an expedited review of this determination if possible and a response via e-mail.

If you require additional information or have any questions or concerns, I can be reached at (850) 883-5525.

Thank you,

Kelly Knight | SAIC

Environmental Scientist | Eglin AFB Natural Resources

107 Highway 85 North | Niceville FL 32578

phone: 850.883.5525 | fax 850.882.5321

email: kelly.knight.ctr@eglin.af.mil

APPENDIX B

PUBLIC NOTIFICATION

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Media Advisory

96th Air Base Wing
Office of Public Affairs
Air Force Materiel Command
101 W. D Avenue, Suite 110
Eglin AFB FL 32542-5498
(850) 882-3931 Fax (850) 882-4894

21 March 2011
Rel. No. 11-09

Fuze Facility NEPA Notice

Eglin AFB, Fla. — In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the completion of a Draft Environmental Assessment and Finding of No Significant Impact for RCS 10-798 and 10-312, Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF) Construction at Eglin AFB, Fla.

The Proposed Action would be to relocate the Air Force Research Lab Fuzes Branch personnel and activities from its current location in Bldg. 419 on Eglin AFB to two new facilities to be constructed in a nearby developed area directly southeast of the current building.

For more information on the Proposed Action, contact Mike Spaits at (850) 882-2836.

-30-

Boykin, Bradley S.

From: Perkins, Terry L CIV USAF AFMC 96 CEG/CEVSP [Terry.Perkins@eglin.af.mil]
Sent: Tuesday, March 29, 2011 8:03 AM
To: Boykin, Bradley S.
Subject: FW: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

-----Original Message-----

From: Chavers, Thomas L CIV USAF AFMC 96 CEG/CEVSP
Sent: Thursday, March 10, 2011 1:03 PM
To: Boykin, Bradley S.
Cc: Perkins, Terry L CIV USAF AFMC 96 CEG/CEVSP
Subject: FW: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Clearinghouse is good.

Larry Chavers

-----Original Message-----

From: Milligan, Lauren [mailto:Lauren.Milligan@dep.state.fl.us]
Sent: Thursday, March 10, 2011 12:48 PM
To: Chavers, Thomas L CIV USAF AFMC 96 CEG/CEVSP
Subject: RE: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

No - we're okay with that one! J

Lauren

-----Original Message-----

From: Chavers, Thomas L CIV USAF AFMC 96 CEG/CEVSP [mailto:Thomas.Chavers@eglin.af.mil]
Sent: Thursday, March 10, 2011 1:36 PM
To: Milligan, Lauren
Subject: RE: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Lauren

So you don't need to review the EA?

Larry Chavers

-----Original Message-----

From: Milligan, Lauren [mailto:Lauren.Milligan@dep.state.fl.us]

Sent: Thursday, March 10, 2011 12:32 PM

To: Chavers, Thomas L CIV USAF AFMC 96 CEG/CEVSP

Cc: Perkins, Terry L CIV USAF AFMC 96 CEG/CEVSP

Subject: FW: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Hi Larry:

RE: Department of the Air Force - Environmental Assessment - Construct a New Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF) on Eglin Air Force Base - Okaloosa County, Florida.

SAI # FL201103075676C

Kelly already forwarded that one to me and we have commented as follows (below). Since the proposed construction activities are relatively minor in scope, it probably could have been a CZMA negative determination under 15 CFR 930.35....

Best regards,

Lauren

Lauren P. Milligan, Environmental Manager

Florida State Clearinghouse

2

Florida Department of Environmental Protection

3900 Commonwealth Blvd, M.S. 47

Tallahassee, FL 32399-3000

ph. (850) 245-2170

fax (850) 245-2190

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey <<http://survey.dep.state.fl.us/?refemail=Lauren.Milligan@dep.state.fl.us>> . Thank you in advance for completing the survey.

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Sent: Monday, March 07, 2011 4:53 PM

To: 'Knight, Kelly E CTR USAF AFMC 96 CEG/CEVSNW'

Cc: Miller, Bob CIV USAF AFMC 96 CEG/CEVSNW; Nunley, Jerry M Mr CTR USAF AFMC 96 CEG/CEVSN

Subject: RE: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Ms. Kelly E. Knight

Environmental Scientist, SAIC

Eglin AFB - 96 CEG/CEVSNW

107 Highway 85 North

Niceville, FL 32578

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SAI # FL201103075676C

Dear Kelly:

Florida State Clearinghouse staff has reviewed the Air Force's FEF/FIF proposal under the following authorities: Presidential Executive Order 12372; Section 403.061(40), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

As noted in the submittal, the project may require an Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NWFWM) per Chapter 62-346, Florida Administrative Code. Please contact the NWFWM's Crestview Field Office at (850) 683-5044 for further assistance and permitting information. In addition, an NPDES permit will likely be required from the Department's NPDES Stormwater Program in Tallahassee - please call (850) 245-7522 for additional information.

Based on the information contained in the submittal and minimal project impacts, the state has determined that, at this stage, the proposed activities are consistent with the Florida Coastal Management Program (FCMP). The state's continued concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of any issues identified during subsequent regulatory reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process in accordance with Section 373.428, Florida Statutes.

Thank you for the opportunity to review the proposed project. Should you have any questions or need further assistance, please don't hesitate to contact me at (850) 245-2170 or Lauren.Milligan@dep.state.fl.us.

Yours sincerely,

Lauren P. Milligan

Lauren P. Milligan, Environmental Manager
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd, M.S. 47
Tallahassee, FL 32399-3000
ph. (850) 245-2170
fax (850) 245-2190

-----Original Message-----

From: Knight, Kelly E CTR USAF AFMC 96 CEG/CEVSNW [<mailto:Kelly.Knight.ctr@eglin.af.mil>]
Sent: Thursday, March 03, 2011 10:04 AM
To: Milligan, Lauren
Cc: Miller, Bob CIV USAF AFMC 96 CEG/CEVSNW; Nunley, Jerry M Mr CTR USAF AFMC 96 CEG/CEVSN
Subject: Department of the Air Force - CZMA Consistency Determination - Construct New Fuze Experimentation Facility and Fuze Industrial Facility

Ms. Lauren Milligan, Environmental Manager, Florida State Clearinghouse Florida Department of Environmental Protection 3900 Commonwealth Boulevard, M.S. 47 Tallahassee, FL 32399-3000

Department of the Air Force - Consistency Determination - New Fuze Experimentation Facility and Fuze Industrial Facility on Eglin Air Force Base (AFB), Okaloosa County, Florida

Dear Lauren:

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Florida State Clearinghouse has 60 days from receipt of this document in which to concur with, or object to, this Consistency Determination, or to request an extension, in writing, under 15 C.F.R. § 930.41(b). However, the Air Force requests an expedited review of this determination if possible and a response via e-mail.

If you require additional information or have any questions or concerns, I can be reached at (850) 883-5525.

Thank you,

Kelly Knight | SAIC

Environmental Scientist | Eglin AFB Natural Resources

107 Highway 85 North | Niceville FL 32578

phone: 850.883.5525 | fax 850.882.5321

email: kelly.knight.ctr@eglin.af.mil

FINAL FINDING OF NO SIGNIFICANT IMPACT
FOR

**FUZE EXPERIMENTATION FACILITY AND FUZE INDUSTRIAL FACILITY
CONSTRUCTION, EGLIN AIR FORCE BASE, FLORIDA**

RCS 10-798 and 10-312

This finding, and the analysis upon which it is based, was prepared pursuant to the President's Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and its implementing regulations as promulgated at 40 Code of Federal Regulations (CFR) Part 1500 (40 CFR 1500-1508) plus:

- US Air Force *Environmental Impact Analysis Process* as promulgated at 32 CFR Part 989.

The Department of the Air Force has conducted an Environmental Assessment (EA) of the potential environmental consequences associated with the Construction of a Fuze Experimentation Facility and Fuze Industrial Facility (FEF/FIF), Eglin Air Force Base, Florida. That March 2011 EA is hereby incorporated by reference into this finding.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The Air Force proposes to relocate the Air Force Research Laboratory Munitions Directorate Fuzes Branch (AFRL/RWMF) personnel and activities from its current location in building 419 to two new facilities to be constructed in a nearby developed area directly southeast of the current building 419. Facilities would be single-story with reinforced concrete foundations, stone exterior and metal siding with insulation over filled cinderblock construction, and sloped standing seam metal roofs. Facilities would comply with Department of Defense (DoD) force protection requirements according to Unified Facilities Criteria.

The total building construction area would be 9,700 square feet (ft²). Associated paved roads and parking totaling 43,800 ft² would also be constructed to support the facilities. Existing substandard facilities totaling 8,800 ft² would be demolished. For this EA, an overall project area of 5 acres that may be disturbed by construction and demolition activities was analyzed.

No Action Alternative

Under the No Action Alternative, the FEF/FIF would not be constructed, and AFRL/RWMF personnel would continue to operate in the current facility. The facility would remain at the current location and in its current substandard state.

This alternative is not a viable alternative since the current facility is inadequate to allow AFRL/RWMF to meet its mission goals. Further, the facility presents a potentially dangerous

work environment for personnel due to the leaky roof and presence of mold, as well as the rodent infestation and potential for deadly disease transmission.

Environmental Impacts

Analysis was conducted to determine the potential impacts to the human and natural environment resulting from the Proposed Action and the No Action Alternative. No significant impacts to resources have been identified. A detailed discussion of issues analyzed and management strategies used to reduce potential impacts is given in the EA, in Chapter 3: Affected Environment and Environmental Consequences, and Chapter 5: Plans, Permits, and Management Actions.

Public Notification

Per 32 CFR 989.24(c), notification was provided to the state Single Point of Contact (Florida State Clearinghouse), local government representatives, and local news media. The Florida State Clearinghouse was provided the Coastal Zone Management Act (CZMA) Consistency Determination detailing the Proposed Action on March 3, 2011 (Appendix A). On March 10, 2011 the Clearinghouse indicated that they had no additional comments on the EA, and gave notice to proceed with the Proposed Action (Appendix B). Local politicians and news media were notified of the proposed action on March 28, 2011 by the 96th Air Base Wing Office of Public Affairs (Appendix B).

Finding of No Significant Impact

Based on my review of the facts and the environmental analysis contained in the attached EA, and as summarized above, I find that the proposed decision of the Air Force to allow the construction of FEF/FIF facility on Eglin AFB, Florida, at the Proposed Action site will not have a significant impact on the human or natural environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's CEQ, and 32 CFR Part 989.



DAVID H. MAHARREY, JR., Colonel, USAF
Commander, 96th Civil Engineer Group



Date